The Ultimate Education Destination

2018 Orlando

ROYAL PACIFIC RESORT AT UNIVERSAL ORLANDO
DECEMBER 2-7

HANDS-ON LABS
Join us for full-day, pre-conference hands-on labs Sunday, December 2.

CONNECT WITH LIVE! 360
#live360

LIVE360EVENTS.COM/ORLANDO
LIVE! 360 OFFERS SIX IN-DEPTH CO-LOCATED TECHNICAL CONFERENCES IN ONE.
When you purchase any Live! 360 6-Day, 5-Day or 3-Day packages, you can customize your conference experience by attending sessions at any of the six co-located events (Visual Studio Live!, SQL Server Live!, TechMentor, Artificial Intelligence Live!, Office & SharePoint Live!, and Modern Apps Live!) – all for one low price (just choose a “primary” conference when registering).
WHAT IS LIVE! 360?

The Ultimate Education Destination

Live! 360™ is a unique conference where the IT and Developer community come together to learn both current and leading edge technologies, as well as broaden their horizons on what’s to come in the industry. These 6 co-located events feature expert education, training, knowledge transfer and networking as you create your own custom conference, choosing sessions and workshops to best suit your needs.

Whether you are a developer, an IT Pro, DBA, or a Data Scientists; whether you are new to the industry or been around for years; whether you manage a large team or work in a 2-person shop; you can view the agenda here, crafted for (almost) every IT title, experience level and team size!

Choose the ultimate education destination: Live! 360.

Attendees of any of the Live! events will have unlimited access to all six co-located conferences - mix and match sessions to create a custom conference!

Visual Studio Live!

Visual Studio Live! features unbiased and practical development training on the Microsoft Platform. Come join us and code in paradise!

SQL Server Live!

SQL Server Live! will leave you with the skills needed to drive your data to succeed, whether you are a DBA, developer, IT Pro, or Analyst.

TechMentor

TechMentor is where IT training meets sunshine, with zero marketing speak on topics you need training on now, and solid coverage on what’s around the corner.

Artificial Intelligence Live!

Artificial Intelligence Live! is an innovative, new conference for current and aspiring developers, data scientists, and data engineers covering artificial intelligence (AI), machine learning, data science, Big Data analytics, IoT & streaming analytics, bots, and more.

Office & SharePoint Live!

Office & SharePoint Live! provides leading-edge knowledge and training to work through your most pressing projects and enable people to work from anywhere at any time.

Modern Apps Live!

Modern Apps Live!, presented in partnership with Magenic, focuses on how to architect, design and build a complete Modern App from start to finish.
Top REASONS TO ATTEND Live! 360 Orlando

1 **FULL DAY HANDS-ON TRAINING!** Sunday Pre-Conference Full-Day Hands-On Labs are back this year to add another full day of learning with these eight options to choose from. Bring your laptop and learn by doing. (Addition Fee does apply, see pricing page for details).

2 **BACK BY POPULAR DEMAND!** Fast, Fun and Focused. On Tuesday afternoon before the Welcome reception we have 2 rounds of fast focused sessions planned. Our conference speakers have crafted special session to deliver need-to-know information in a laser-focused, engaging way.

3 **MAKE THE CONFERENCE YOUR OWN.** Mix and match sessions and workshops from any of the six events to best serve your needs. Because of the convenient co-location, there will be even more opportunities to access 180+ sessions, 75+ speakers, 1200+ fellow attendees, and a robust exhibit floor—all enhancing your event experience.

4 **SPEND QUALITY TIME WITH PEERS FROM AROUND THE WORLD.** Incorporating knowledge transfer, networking and leading-edge training into six intense days, these conferences will get you up-to-date on current technologies with a look to the future, while giving you the opportunity to network with fellow tech pros from points around the globe!

5 **IT’S CALLED LIVE! 360 FOR A REASON.** Not only do we cover a full circle of technologies, but we feature both unbiased industry experts and Microsoft insiders, so you’ll hear every side of the story on the most recent software and industry updates.

6 **CHOOSE YOUR SESSIONS BY JOB ROLE.** These forward-thinking and educational events are geared toward 5 general job roles: Developer, IT Pro, DBA, SharePoint Specialist, BI Professional/Analyst. Whether you are a developer who uses Visual Studio or a team lead in charge of implementing Agile, or an IT Pro who is looking to improve your technical skills or just getting into your SharePoint administrative duties, or a SQL Server DBA looking to maintain, tune and consolidate, the agendas are crafted for (almost) every IT title.

7 **6 GREAT CONFERENCES; 1 GREAT PRICE!** Attend any one of the Live! 360 events and you’ll have unlimited access to all six events—including our Artificial Intelligence Live! conference that is new this year—and it’s all included in one low price!

8 **THE ULTIMATE EDUCATION DESTINATION.** Located at the beautiful (and attendee favorite) Royal Pacific Resort at Universal Orlando, the setting and time of year are perfect for bringing the family along to enjoy all that Orlando has to offer.
The Fun Stuff:
LIVE! 360 ORLANDO EVENTS & ACTIVITIES

YOUR ATTENDANCE AT LIVE! 360 is about learning from your peers as well as the experts; make the most of your time with us and add these events and activities to your itinerary!

DINE-A-ROUND DINNER
Monday, December 3, 6:30 – 8:00pm
Universal CityWalk
Join other conference attendees and speakers for a casual, no-host dinner and make a few new friends while enjoying the fun and delicious themed restaurants at Universal CityWalk. This is your opportunity to meet fellow attendees and start friendships that can last for the week or even longer. Attendees can break into smaller groups based on where everyone wants to dine and head off to dinner. Everyone is responsible for their own dinner.

EXHIBITOR WELCOME RECEPTION
Tuesday, December 4, 5:30 – 7:30pm
Expo Hall
Enjoy drinks and snacks while you explore the Live 360 exhibits and network with fellow attendees and speakers. This is your chance to check out the latest offerings from our exhibitors to help you in daily life when you return to the office.

BIRDS-OF-A-FEATHER LUNCH
Wednesday, December 5, 12:30 – 1:30pm
Plumb the knowledge and experience of your colleagues, conference speakers and exhibitors by participating in one of the Birds-of-a-Feather table discussions. These tables are designated with a sign and seating is on a first-come basis. There will be a wide variety of topics covering all Live! 360 events and many tables will host a conference speaker to keep the conversation going.

LIVE! 360 DESSERT LUAU
Wednesday, December 5, 7:30 – 9:00pm
Come celebrate the South Pacific with delectable desserts, drinks and fabulous entertainment! Mingle with fellow attendees and speakers while enjoying the warm Florida winter weather. Settle down under the stars to enjoy a delicious dessert buffet, complete with cocktails, and an authentic Polynesian performance including dancers and fire throwers.
LIVE! 360 KEYNOTES & EVENTS

TUESDAY LIVE! 360 KEYNOTE*:
To Be Announced
Tuesday, December 4
11:00am - 12:00pm
Details coming soon.

WEDNESDAY LIVE! 360 KEYNOTE:
Enterprise Transformation (And You Can Too)
Wednesday, December 5
11:30am - 12:30pm

Donovan Brown
Principal DevOps Manager,
Cloud Developer Advocacy Team, Microsoft

“That would never work here.” You’ve likely heard this sentiment (or maybe you’ve even said it yourself). Good news: change is possible. Donovan Brown explains how Microsoft’s Visual Studio Team Services (VSTS) went from a three-year waterfall delivery cycle to three-week iterations and open sourced the VSTS task library and the Git Virtual File System.

Donovan Brown is a Principal DevOps Manager on Microsoft’s Cloud Developer Advocacy team. Why is DevOps one of the hottest topics? Because it hurts the most. Luckily, Donovan’s unofficial tag line is #RubDevOpsOnIt and he’s here to make it all better. Before joining Microsoft, Donovan spent seven years as a Process Consultant and a Certified Scrum Master. Developer Tools are his thing. Donovan has travelled the globe helping companies in the U.S., Canada, India, Germany, and the UK develop solutions using agile practices, Visual Studio, and Team Foundation Server in industries as broad as Communications, Health Care, Energy, and Financial Services. What else keeps the wheels spinning on The Man in The Black Shirt? Donovan’s also an avid programmer, often finding ways to integrate software into his other hobbies and activities, one of which is Professional Air Hockey where he has ranked as high as 11 in the world.

THURSDAY NETWORKING EVENT:
NEXT? LIVE! 360 NETWORKING EVENT
Thursday, December 6
4:00 – 5:00pm
After a week of intense learning, what’s next for you and your current projects? Part Q&A with speakers and conference chairs and part peer exchange, you can use this time to network with your fellow Live! 360 attendees and select speakers to discuss the best ways to move your projects to the next level.

Heidi Araya
Agile Coach and Trainer

Andrew Brust
Founder and CEO, Blue Badge Insights

Jeremy Clark
Developer Educator, JeremyBytes.com

Ben Curry
Managing Partner, Summit 7

Benjamin Day
Consultant / Trainer, Benjamin Day Consulting, Inc.

Peter De Tender
Microsoft Cloud Solution Architect, PDTIT

Brent Edwards
Principal Lead Consultant, Magenic

Kevin Ford
Mobile Practice Lead, Magenic

Grant Fritchey
Product Evangelist, Red Gate Software

Esteban Garcia
Founder and Chief Technologist, Nebbia Technology

Seth Juarez
Cloud Developer Advocate, Microsoft

Dave Kawula
Principal Consultant, TriCon Elite Consulting

Cristal Kawula
President, TriCon Elite Consulting

Sam Laiho
Senior Technical Fellow / CEO, Adminize.com

Thomas LaRock
Head Geek, Solarwinds

Vishwas Lele
CTO, AIS

Rockford Lhotka
CTO, Magenic

Karen Lopez
CTO, Magenic

Matthew McDermott
Founder and Director, Aptillon, Inc.

Brian Randell
Partner, MCW Technologies

Paul Schaefflein
Enterprise Architect, DMI (Digital Management, LLC)

Jen Underwood
Founder, Impact, Analytix, LLC

Rob Windsor
Senior Consultant, Portal Solution
CONFERENCE KEYNOTES

KEYNOTE

.NET Everywhere and for Everyone
Tuesday, December 4, 8:00 – 9:00am
James Montemagno, Principal Program Manager - Mobile Developer Tools, Microsoft

In this Mobile First, Cloud First world, it’s critical to have a high-performing, powerful framework available on every platform you’re targeting. That framework is .NET and has expanded to every device imaginable. Whether it’s server, Web, mobile, wearables, or IoT, .NET is there and fully cross-platform. Developers can now leverage Xamarin to craft native Mobile and Desktop applications from a single shared code base, while building back-ends and Web sites in .NET Core and ASP.NET Core to run on any OS to power them. This keynote session will focus on how you can leverage your existing .NET and C# skills to build apps for any platform. You’ll go through everything you need to get started building apps and a few revolutionary tools to help learn the amazing APIs packed into each platform.

KEYNOTE

OneDrive and M365 - Enabling Secure and Seamless Collaboration for an Untethered Workforce
Tuesday, December 4, 8:00 – 9:00am
Stephen Rose, Sr. Product Manager, OneDrive for Business, Microsoft
Jason Moore, Head of OneDrive, Partner Group Program Manager, Microsoft

At Ignite in September, the OneDrive team announced new features and functionality coming to M365 and OneDrive. Join OneDrive Partner/GMP Jason and Sr. PMM Stephen Rose to hear about all the investments in features and functionality for OneDrive as well as how those effect the components in Microsoft 365 and why for the second year in a row, OneDrive was named top product in execution for the second year in a row in Garnter’s Magic Quadrant. We will discuss the investments Microsoft is making today and how this new functionality will affect you as well as demo all the latest features for Windows, Mac, Web, iOS and Android.

KEYNOTE

What is Keeping You from the Cloud? It’s You!
Tuesday, December 4, 8:00 – 9:00am
Neil Hodgkinson, Senior Program Manager, O365 CXP Team, Microsoft
Aimme Triplet, Engineer, Fast Track Center, Microsoft

Office 365 has been available for years and organizations of all sizes have moved all or parts of their business to this business ready platform in the cloud. Organizations that need to maintain services on-premises are benefiting from the hybrid configuration for collaboration and search. Why are you not taking advantage of these great services? This session explores the reasons organizations fail to move key business workloads to the cloud. How can you prepare your organization for the 5 main challenges? What can you do now to prepare to use the power of the cloud to work more efficiently, across devices and mobile platforms and create a more secure, efficient and resilient IT Infrastructure? This session will provide practical tips for your company.
Panel Discussions

Visual Studio Live! Panel:
What Matters Most for the Future of Your Applications: AI, Data, Security, or UX?
Thursday, December 6, 11:00am – 12:00pm
In the real world, things are full of compromise. However, when we think of building the best, modern applications, we think about “next generation” apps that do it all, wherever the user may be. But what what’s the best way forward? Artificial Intelligence is getting tons of attention and investment, but without good data, how compelling is it? Then there’s security. Every day there’s a new breach. Should we all just stop and really get better at security, or is all of this a moot point if the user experience is horrible? Come hear Billy, Tanya, Oren, Rabeb and your host, Brian, provide their insights into what you should be learning to be ready for the next five to ten years of application development. Expect a lively discussion, as we put experts in each field in the same room and have them argue their position.

SQL Server Live! & Artificial Intelligence Live! Panel:
Keeping Pace with AI and Machine Learning While Maintaining Your Day Job
Thursday, December 6, 11:00am – 12:00pm
Artificial Intelligence and Machine Learning (AI and ML) are together a big bet in the industry. Wherever you look, there seems to be some kind of “AI added” story. Cloud platforms have their ready-to-run cognitive services. Chatbot APIs abound for application developers. And databases are in on the game too: SQL Server can host R and Python code, or even perform ML inferencing right from SQL queries.

So AI and ML are relevant, but with your daily responsibilities still focused on non-AI tasks, and not in any way letting up, how in the world can you onboard to the AI world?
Our panel of speakers have a few things to say on this matter. They’re database and BI professionals who have crossed over to AI. They’ve come a long way, but their journey continues as the AI technology stack develops and stabilizes. If you’d like to make the journey too, come hear how they’ve been doing it and how they’re continuing to; they’re eager to share. Bring your questions and ideas, too. AI is still emerging; let’s map out the career journey together.

Get the full 360 degree perspective and hear different viewpoints on hot topics. Strengthen your career and sharpen your mind with these expert panel discussions.
Panel Discussions

Get the full 360 degree perspective and hear different viewpoints on hot topics. Strengthen your career and sharpen your mind with these expert panel discussions.

**TechMentor Panel: The Future of IT**
Thursday, December 6, 11:00am – 12:00pm

If something is certain in IT it’s change. With the current pace of getting new operating system versions two times a year and keeping the management tools around them up to date, it’s no wonder if one feels a little dizzy with the number of things to learn. Take this chance to hear from industry experts on what’s actually important to focus on, and how to deal with this rapid change in real life. The panel is comprised of some of the world’s leading experts on IT technologies and topics, so if you can’t get your question answered here, you probably can’t get it anywhere.

Dave Kawula (Moderator)
Principal Consultant,
TriCon Elite Consulting

Sami Laiho (Moderator)
Senior Technical Fellow,
Adminize.com

Will Anderson
Owner/Blogger,
The Last Word In Nerd

Johan Arwidmark
Chief Technology Officer, TrueSec

Ami Casto
Technical Evangelist, Adaptiva

Don Jones
Director of Technical Curriculum, Pluralsight

**Office & SharePoint Live! Panel: Is It Time for IT Pros to Start Trusting Developers?**
Thursday, December 6, 11:00am – 12:00pm

Dogs and Cats, Oil and Vinegar, Developers and IT Pros, can’t we just all get along and trust one another? In this panel discussion we will explore the current state of Development and Deployment maturity and decide if it’s time for IT Pros and Developers to settle the age-old battle of custom development and governed deployment. Our panel has two expert enterprise developers and two IT Pros set to tackle the hard questions and see if we all can get along!

Matthew McDermott (Moderator)
Founder and Director, Aptillon, Inc.

Ben Curry
Managing Partner, Summit 7

Paul Schaeflein
Enterprise Architect

Rob Windsor
Senior Consultant and Trainer

Matthew McDermott
Chief Technology Officer, TrueSec

Ami Casto
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Will Anderson
Owner/Blogger, The Last Word In Nerd
## AGENDA AT-A-GLANCE

### Visual Studio Live! Full Day Hands-On Labs: Sunday, December 2, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>9:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
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</tr>
<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td><strong>VSS01</strong> Hands-On Lab: Develop an ASP.NET Core 2 and EF Core 2 App in a Day</td>
<td>Philip Japikse</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>Pre-Conference Registration • Royal Pacific Resort Conference Center</td>
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### Visual Studio Live! Pre-Conference Workshops: Monday, December 3, 2018

<table>
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<tr>
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<tr>
<td>8:30 AM</td>
<td>5:30 PM</td>
<td><strong>VSM01</strong> Workshop: Web Development in 2018</td>
<td>Chris Klug</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group</td>
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### Visual Studio Live! Day 1: Tuesday, December 4, 2018

<table>
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<tr>
<th>START TIME</th>
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<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td><strong>VISUAL STUDIO LIVE! &amp; MODERN APPS LIVE! KEYNOTE: .NET Everywhere and for Everyone</strong></td>
<td>James Montemagno, Principal Program Manager - Mobile Developer Tools, Microsoft</td>
</tr>
<tr>
<td>9:15 AM</td>
<td>10:30 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
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<tr>
<td>10:00 AM</td>
<td>11:00 AM</td>
<td>LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>Lunch • Visit the EXPO</td>
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<tr>
<td>12:00 PM</td>
<td>12:45 PM</td>
<td>Dessert Break • Visit the EXPO</td>
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<td>1:30 PM</td>
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<td>Networking Break • Visit the EXPO</td>
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<tr>
<td>1:30 PM</td>
<td>1:50 PM</td>
<td><strong>VST05</strong> Fast Focus: Serverless Computing: Azure Functions and Xamarin in 20 Minutes</td>
<td>Laurent Bugnion</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td><strong>VST08</strong> Fast Focus: Getting Started with ASP.NET Core 2.0 Razor Pages</td>
<td>Walt Ritscher</td>
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<tr>
<td>2:20 PM</td>
<td>2:45 PM</td>
<td>Networking Break • Visit the EXPO</td>
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</table>

**Sessions and speakers subject to change.**
### AGENDA AT-A-GLANCE (continued)

#### Visual Studio Live! Day 1: Tuesday, December 4, 2018 (Continued)

<table>
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<tr>
<th>START TIME</th>
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<tbody>
<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td>VST11 Introduction to Webpack</td>
<td>Chris Klug</td>
</tr>
<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td>VST15 Angular Application Testing Outside the Church of TDD</td>
<td>Chris Klug</td>
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<tr>
<td>4:45 PM</td>
<td>5:30 PM</td>
<td>VST12 Xamarin.Forms Takes You Places!</td>
<td>Sam Basu</td>
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<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>VST13 Using the Cloud to Power Your Cross-platform Applications</td>
<td>Laurent Bugnion</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>VST14 Writing Testable Code and Resolving Dependencies – DI Kills Two Birds with One Stone</td>
<td>Miguel Castro</td>
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<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td>VST16 Busy .NET Developer’s Guide to Python</td>
<td>Ted Neward</td>
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<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>VST17 HoloLens, Mixed Reality &amp; VR Development with the Cloud</td>
<td>Nick Landry</td>
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</table>

#### Visual Studio Live! Day 2: Wednesday, December 5, 2018

<table>
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<tr>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>VSW01 The Whirlwind Tour of Authentication and Authorization with ASP.NET Core</td>
<td>Chris Klug</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>VSW02 Essential Tools for Xamarin Developers!</td>
<td>Sam Basu</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>VSW05 Assembling the Web - A Tour of WebAssembly</td>
<td>Jason Bock</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>VSW06 Cross-Platform App Dev with Xamarin and CSLA .NET</td>
<td>Rockford Lhotka</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>LIVE! 360 KEYNOTE: Enterprise Transformation (And You Can Too)</td>
<td>Donovan Brown, Principal DevOps Manager, Cloud Developer Advocacy Team, Microsoft</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Birds-of-a-Feather Lunch</td>
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<tr>
<td>1:30 PM</td>
<td>2:00 PM</td>
<td>VSW03 Introduction to Windows Containers and Docker</td>
<td>Marcel de Vries</td>
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<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td>VSW07 Microservices with AKS (Azure Kubernetes Service)</td>
<td>Vishwas Lele</td>
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<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td>VSW08 To Be Announced</td>
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<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td>VSW09 No Strings Attached: JavaScript without Webpack, Transpilers, or Frameworks</td>
<td>Ashley Grant</td>
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<tr>
<td>3:00 PM</td>
<td>4:00 PM</td>
<td>VSW10 DevOps for the SQL Server Database</td>
<td>Brian Randell</td>
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<tr>
<td>3:00 PM</td>
<td>4:00 PM</td>
<td>VSW11 Programming with Microsoft Flow</td>
<td>Walt Ritscher</td>
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<tr>
<td>3:00 PM</td>
<td>4:00 PM</td>
<td>VSW12 What’s New in C# 7</td>
<td>Phil Japikse</td>
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<tr>
<td>3:15 PM</td>
<td>4:00 PM</td>
<td>Networking Break</td>
<td>Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>4:00 PM</td>
<td>VSW13 Electron: Desktop Development For Web</td>
<td>Chris Woodruff</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>VSW14 Entity Framework for Enterprise Applications</td>
<td>Benjamin Day</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>VSW15 The Mystical World of I/O Bindings in Azure Functions</td>
<td>Ashley Grant</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>VSW16 Signing Your Code the Easy Way</td>
<td>Oren Novotny</td>
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</table>

Sessions and speakers subject to change.

Continued next page
**AGENDA AT-A-GLANCE (continued)**

<table>
<thead>
<tr>
<th>DevOps in the Spotlight</th>
<th>Cloud, Containers and Microservices</th>
<th>App Dev Data</th>
<th>Developing New Experiences</th>
<th>Delivery and Deployment</th>
<th>.NET and More</th>
<th>Full Stack Web Development</th>
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### Visual Studio Live! Day 3: Thursday, December 6, 2018

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<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>VSH01</strong> Encrypting the Web - Robert Boedigheimer</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>VSH02</strong> Learning The Language Of HTTP For A Better Data Experience In Your Mobile Apps - Chris Woodruff</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>VSH03</strong> How to Interview a Developer - Billy Hollis</td>
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<td>8:00 AM</td>
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<td><strong>VSH04</strong> Creating a Release Pipeline with Team Services - Esteban Garcia</td>
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<td><strong>VSH05</strong> Advanced Fiddler Techniques - Robert Boedigheimer</td>
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<td><strong>VSH06</strong> Making XAML Do Things You Didn’t Realize It Could - Billy Hollis</td>
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<td><strong>VSH07</strong> What Developers Want - Rabeb Othmani</td>
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<td><strong>VSH08</strong> To Be Announced</td>
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<td>11:00 AM</td>
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<td>Visual Studio Live! Panel Discussion: What Matters Most for the future of Modern Apps: AI, Data, Security, or UX? (Moderated) - Brian Randell, Billy Hollis, Tanya Janca, Oren Novotny, &amp; Rabeb Othmani</td>
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<td>12:00 PM</td>
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<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
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<td>1:00 PM</td>
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<td><strong>VSH09</strong> Get Func-y: Understanding Delegates in .NET - Jeremy Clark</td>
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<td><strong>VSH10</strong> Non-Useless Unit Testing Entity Framework &amp; ASP.NET MVC - Benjamin Day</td>
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<td>1:00 PM</td>
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<td><strong>VSH11</strong> Modernizing the Enterprise Desktop Application - Oren Novotny</td>
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<td>1:00 PM</td>
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<td><strong>VSH12</strong> DevOps: A Catalyst for Enterprise Agility - Heidi Araya &amp; Esteban Garcia</td>
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<td>2:30 PM</td>
<td>3:45 PM</td>
<td><strong>VSH13</strong> IEnumerable, ISaveable, IDontGetIt: Understanding .NET Interfaces - Jeremy Clark</td>
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<td>2:30 PM</td>
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<td><strong>VSH14</strong> Finding Your Place in the Cosmos: When and Why You Should Consider Azure Cosmos DB - Eric Potter</td>
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<td>2:30 PM</td>
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<td><strong>VSH15</strong> Pushing Left Like a Boss: Application Security Foundation - Tanya Janca</td>
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<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event - Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day, Peter De Tender, Brent Edwards, Kevin Ford, Grant Fritchey, Esteban Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas LaRock, Vishwas Lele, Rockford Lhotka, Karen Lopez, Matthew McDermott, Brian Randell, Paul Schaefflein, Jen Underwood, Rob Windsor</td>
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### Visual Studio Live! Post-Conference Workshops: Friday, December 7, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
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<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>VSF01</strong> Workshop: UX Design for Developers: Basics of Principles and Process - Billy Hollis</td>
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<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>VSF02</strong> Workshop: Microservices with AKS (Managed Kubernetes) - Vishwas Lele</td>
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</table>

Sessions and speakers subject to change.

“PRESENTERS WERE KNOWLEDGEABLE AND PERSONABLE WITH GREAT ABILITY TO DELIVER CONTENT.”

- William White, HCCMIS
FULL-DAY HANDS-ON LABS

Remember to bring your laptops!

VSS01 Hands-On Lab: Develop an ASP.NET Core 2 and EF Core 2 App in a Day
Intermediate
PHILIP JAPIKSE
Sunday, December 2, 9:00am – 6:00pm

Interested in ASP.NET Core 2.x and Entity Framework Core 2.x, but not sure where to start? Start here with an all-day Hands-On Lab where you’ll build a complete solution using the latest development technology from Microsoft. Using Visual Studio 2017 (15.7 or greater) and .NET Core 2.1, you’ll build a data access library using EF Core, complete with repos and migrations. Next, you’ll build an ASP.NET Core Web application, leveraging all of the latest that ASP.NET Core has to offer, including Tag Helpers, View Components, Dependency Injection and more!

You will learn:
• The new project structure for .NET Core 2.x apps
• Creating a data access layer with EF Core 2.x
• Initializing data for testing with EF Core 2.x
• Building a Web site with ASP.NET Core 2.x
• Configuring the HTTP pipeline and routing
• Using and creating Tag Helpers
• Creating and using View Components
• Leveraging Dependency Injection

Attendee Requirements:
• You must provide your own laptop computer for this Hands-On Lab.
• You’ll need to have Visual Studio 2017 15.7+ installed (any edition). Visual Studio 2017 15.7+ Community Edition can be downloaded from visualstudio.com/downloads. When installing, make sure to select the "ASP.NET and web development" and "NET Core cross-platform development" workloads.
• You’ll need to install the x64 versions of the SDK and Runtime (2.1.300). They can be downloaded from microsoft.com/net/download/core. Confirm the install by opening a command prompt, enter “dotnet --version” (without the quotes) - you should see 2.1.300. Note: The trailing zeros (0) are required. Confirm the runtime by typing “dotnet --list-runtimes” (without the quotes) and look for “2.1.0.”
• You’ll need to have SQL Server Express 2014 or later. Visual Studio 2017 15.7 installs SQL Server Express LocalDb by default, and this is perfect for this Hands-On Lab. If you need to install SQL Server Express you can install from msdn.microsoft.com/en-us/library/ hh510202.
• Optionally, install SQL Server Management Studio (SSMS). SSMS can be installed from the SQL Server 2016 Express installer, located at msdn.microsoft.com/en-us/library/hh510202.
• Finally, you need to download the starter files and Lab documents, located in github.com/skimedic/dotnetcore_hol/tree/master/2.1.

VSS02 Hands-On Lab: From 0-60 in a Day with Xamarin and Xamarin.Forms
Introductory / Intermediate
ROY CORNELISSEN & MARCEL DE VRIES
Sunday, December 2, 9:00am – 6:00pm

Until recently, becoming a multi-platform mobile developer using just .NET seemed like a dream. When Microsoft acquired Xamarin, it opened up a whole new world of native mobile app development with the beloved .NET Framework. But building high-quality apps on iOS, Android and the Universal Windows Platform (UWP) isn’t just that easy and might seem daunting. This session will guide you on your journey into mobile.

In this full-day Hands-On Lab, you’ll walk through the process of building one app for many platforms. You’ll learn how to reuse as much code as possible, while keeping the uniqueness of each platform to appeal to native users. You’ll also learn the details of each platform, the app concepts of each platform, because we think building quality apps requires understanding the platforms for which you’re building. You’ll learn how you can architect your app in such a way to share code among these platforms and help you get much better ROI than building three separate native apps.

You will learn:
• How to build your first mobile apps on three platforms with the Xamarin framework
• How to maintain platform uniqueness while sharing a large chunk of your code base
• How to think “mobile first” in your application architecture

Attendance is limited.

Attendee Requirements:
You must provide your own laptop computer for this Hands-On Lab.
Both an Apple macOS laptop or Windows PC laptop running Windows 10 will work fine. Make sure you have Visual Studio for Mac (macOS) or Visual Studio 2017 (Windows) installed (and edition will do), including the tools for Xamarin mobile development. A quick overview can be found in the following video or blogpost.

Please make sure to download Xamarin and the platform SDKs (Android, iOS, Windows) before the conference, as these downloads take up a lot of bandwidth.
**VSS03  Hands-On Lab: Build a Vue.js App in Day**

**Introductory / Intermediate**

**TED NEWARD**

**Sunday, December 2, 9:00am – 6:00pm**

Vue.js is an open-source JavaScript framework for building user interfaces, and unlike some other JavaScript frameworks, VueJS is designed to be incrementally adoptable—rather than requiring an “all-in” strategy using Vue. A website or web application can use Vue for parts, and leave the rest as-is. One can use Vue as a view-only layer, or build out a full-blown Single-Page Application with Vue, given some supporting libraries are used.

In this hands-on workshop, we will examine the core bits of Vue, how to get started with it, and where to go past the basics. C’mon out and find out how to upgrade your app without having to commit to a full teardown/rebuild.

**Prerequisite:** Assumes familiarity with HTML, CSS and JS

**You will learn:**
- How to get started with VueJS
- VueJS’s incremental approach to building an application
- Explore VueJS’s components

**Attendance is limited.**

**Attendee Requirements:**
You must provide your own laptop computer for this hands-on lab.

Prior to attending this HOL, you must install a Web editor (such as VSCode), a modern Web browser, and Git.

**WORKSHOPS**

**VSM01  Workshop: Web Development in 2018**

**Introductory / Intermediate**

**CHRIS KLUG**

**Monday, December 3, 8:30am – 5:30pm**

Being a Web developer is hard! Very hard! The world around us changes at a pace that would make most people dizzy. And if you’re in the Microsoft space, and using Visual Studio, for example, the release cadence of the IDE is way too slow to keep up. You have to go outside your comfort zone and locate other tools that can help you. Tools that will do what you want, but will still work together with your existing tools. You’ll probably also have to leave your Microsoft path and look at non-Microsoft technologies and frameworks. Something that can be a bit scary, to be honest ... but you might be surprised by what you find!

A few years ago, Chris Klug returned to Web development after a few years doing other things … cough … Silverlight … cough. What he returned to was a lot different than what he had left. The tools were different, the pace ridiculous and the pressure to keep up high. But he also found a new passion for front-end Web development—something he wants to share with you during this workshop! So be prepared for a day of ASP.NET Core, Azure, node, npm, gulp, webpack, TypeScript and more!

This workshop is intended for developers who find themselves a bit overwhelmed by today’s Web, and the tools and technologies that are emerging. Throughout the day, you’ll see different tools and frameworks that will make your life as a front-end Web developer easier, faster and better. Hopefully you’ll walk out with an urge to explore these new things or, potentially, you’ll have a loathing for Web development. Either way, you’ll probably have a new way of looking at Web development!

**You will learn:**
- Understand what tools Web developers use to optimize their lives
- Understand why using preprocessors makes life easier
- Walk away with an understanding of how a current development situation can be improved using modern techniques

**VSM02  Workshop: Architect and Build a Modern ASP.NET App in the Azure Cloud with a Full CI/CD Pipeline with VSTS**

**Intermediate**

**BRIAN RANDELL AND MIGUEL CASTRO**

**Monday, December 3, 8:30am – 5:30pm**

DevOps is an organizational transformation that starts with people, process, and then products. It’s a journey of continuous improvement that requires changes just about everywhere including how you architect your applications, how you build them, and how you run them in production.

As a team member, how can you embrace DevOps at a more technical level? You’ve heard you need to change the way you work with version control—trunk-based development? The idea of feature flags sound intriguing but how do you do it? Do you still need testers? How do you get to “10 plus deploys a day”? How do you monitor and manage a production application in the cloud?

It this all-day workshop, Brian and Miguel will break the day down into five parts where we’ll start with nothing and end with an ASP.NET app using a SQL Server Database, all running in Azure with a full continuous integration / continuous deployment (CI/CD) pipeline managed by Visual Studio Team Services (VSTS).

First, there will be a review on the current thinking on DevOps. Next will be the planning & tracking phase where the architecture of the app will be broken out and defined. Then the dev & test phase where we get feature flags implemented, CI builds working, manual and automated tests, and more. In the release phase,
VISUAL STUDIO LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:
• How to manage a deployed app in Azure
• How to share common code across all these platforms

You will learn:
• How to build C# and .NET code that runs cross-platform
• How to leverage .NET Standard and .NET Core
• How to share common code across platforms

VSF02 Workshop: Microservices with Azure Kubernetes Service (AKS)
Introductory / Intermediate
VISHWAS LELE
Friday, December 7, 8:00am – 5:00pm
In four years, Kubernetes has gone from an open source orchestrator, to being accepted as the inaugural project of the Cloud Native Computing Foundation (CNCF), to now when it’s undoubtedly seen as the container orchestration standard. Strong community support for Kubernetes can be gauged by the fact that, in terms of number of authors/issues, it is No. 2 (with No. 1 being Linux) across all projects on GitHub.

Today, Kubernetes as a service is available on all major public cloud platforms, including Azure. Azure Kubernetes Service (AKS) is a “managed” offering. This means that it greatly reduces the complexity and operational overhead of managing Kubernetes. AKS handles critical tasks like health monitoring and maintenance. AKS also natively integrates with Azure platform services like Azure Active Directory, Log Analytics and Azure Virtual Network. Finally, AKS enjoys a rich ecosystem of development tools such as Helm, Draft and extension for Visual Studio Code.

In summary, if you’re building a container-packaged, microservices-oriented application, it’s more than likely that such an application will need to run on a dynamically managed cluster such as AKS (for optimal use of resources and lowering overall TCO).

In this deep-dive workshop on “all things Kubernetes,” we’ll start with a discussion on design principles around microservices. Next, we’ll review Kubernetes concepts in detail. Finally, we’ll dive deep into AKS itself and how it integrates with other Azure services.

You will learn:
• About microservices design principles
• Deep dive into AKS
• How AKS integrates with other Azure services

VSF01 Workshop: UX Design for Developers: Basics of Principles and Process
Intermediate
BILLY HOLLIS
Friday, December 7, 8:00am – 5:00pm
If you create screens in your application without detailed wireframes, then you’re doing UX design. Why not do it better? This full-day session will teach you two dozen foundational principles of design, based on science of the visual system and human psychology. Then you’ll see a lightweight process for understanding needs, observing users and sketching to produce compelling, innovative experiences. The day is exercise-heavy—come prepared to do hands-on, creative work. Many attendees have said this workshop changed their whole approach to software development.

You will learn:
• The principles of design through experience, taking tests to understand how your own mind and visual system work
• See a variety of bad UXes, and learn how to pinpoint the principles behind their flaws
• A basic process for proceeding through UX design, starting with problem definition, and proceeding through user observation and design via sketching, wireframing and prototyping

VSM03 Workshop: Cross-Platform C# Using .NET Core and WebAssembly
Intermediate
ROCKFORD LHOTKA & JASON BOCK
Monday, December 3, 8:30am – 5:30pm
We have entered an era where Microsoft .NET runs everywhere—on servers and client devices. Windows, macOS, iPhone/iPad, Android, Linux and other platforms are now supported. Perhaps even more exciting is the standards-based WebAssembly (wasm) platform, allowing front-end Web development to be done in languages other than JavaScript, including C, C++, Go, Rust and C#. Yes, .NET now runs in the browser using native browser capabilities—no plug-ins are needed.

In this workshop Rocky and Jason will show you how to build C# and .NET code that runs on Windows, Linux, Docker, macOS, iOS, Android and in the browser. You’ll learn how to leverage .NET Core, .NET Standard (netstandard), Visual Studio, Visual Studio Code, Docker, and many other tools and technologies to build apps and services for each platform. Perhaps more important, you’ll learn how to share common code across all these platforms, and techniques for when you need to also leverage platform-specific code.
VISUAL STUDIO LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**DevOps in the Spotlight**
DevOps impacts all aspects of the software lifecycle, from development and testing to security, deployment and runtime monitoring. DevOps has been called the second decade of Agile. However, it isn’t just about tools and technologies, either. It’s people, process, then products. It’s about continuous value delivery. DevOps is an organizational transformation. You have a role to play when it comes to DevOps, and in this track, you’ll learn tools, techniques and concepts you can immediately apply to your daily work.

You’ll find coverage of:
- Cross-platform testing with xUnit
- Testing in production using Azure and VSTS
- DevOps for Azure and VSTS
- Scrum, Kanban or Scrumban
- Creating a release pipeline with VSTS
- Migrating from Team Foundation Version Control to Git
- DevOpsSec with VSTS and Azure

**VST04 Modernizing Your Source Control: Migrating to Git from Team Foundation Version Control (TFVC)**
*Introductory / Intermediate*
**COLIN DEMBOVSKY**
Tuesday, December 4, 9:15 – 10:30am
Over the past few years, Git has evolved to become the de facto source control system for modern application development. Are you still on Team Foundation Version Control (TFVC)—or some other centralized source control system like Subversion? If so, you may be tempted to think that Git has nothing to offer. In this session you’ll learn why you should be thinking of moving to Git, what advantages it offers and how it differs from TFVC. You’ll look at some of the considerations (like large files and binary sharing) and explore some strategies to migrating to Git.

**You will learn:**
- Why move to Git from TFVC
- Common challenges and how Git addresses them (package management, Git Virtual File System)
- TFVC to Git migration strategies

**VST09 Fast Focus: Cross-Platform Device Testing with xUnit**
*Introductory*
**OREN NOVOTNY**
Tuesday, December 4, 2:00 – 2:20pm
Discover how to test your mobile apps and class libraries with xUnit for Devices.

**You will learn:**
- Understand the difference of xUnit vs. NUnit
- Get started with unit tests that run on a physical device or emulator
- Explore patterns for sharing code between test projects

**VST18 Testing in Production Using Azure and Visual Studio Team Services (VSTS)**
*Intermediate*
**COLIN DEMBOVSKY**
Tuesday, December 4, 4:15 – 5:30pm
When it comes to testing, there’s no place like production! But how do you test in production and minimize risk simultaneously? How do you know if new code is better or producing the desired results? In this demo-rich session, learn effective techniques such as how to add effective telemetry to provide test data; how and when to use feature flags, and A/B testing using Azure Web Apps, LaunchDarkly, Application Insights and VSTS.

**You will learn:**
- Instrumenting code with Application Insights
- When and how to use feature flags
- Using Azure Web app deployment slots for A/B testing

**VSW04 OWASP DevSlop: DevSecOps with VSTS & Azure**
*Introductory / Intermediate*
**TANYA JANCA**
Wednesday, December 5, 8:00 – 9:15am
The OWASP DevSlop team is back with “Patty,” a new module of the project consisting of a DevSecOps pipeline made with VSTS (and many security plug-ins)

**VSH04 Creating a Release Pipeline with Visual Studio Team Services**
*Intermediate*
**ESTEBAN GARCIA**
Thursday, December 6, 8:00 – 9:15am
Teams go through an entire project without knowing if their applications work or compile anywhere other than a developer’s machine. It’s often thought that creating a continuous build and release process is difficult to do. By creating a robust release pipeline, you can reduce your team’s cycle time and increase your ability to have a healthy code base.

We’ll use VSTS to create a continuous integration build and release process that will help you go from coding in Visual Studio 2017 to running your code in Azure in just a few simple actions. Your release pipeline will compile your code, run unit tests, create multiple Azure environments, run functional tests and load tests, and ensure that you have working and deployable software throughout your entire project.
You will learn:
- About the build and release system in VSTS
- To deploy infrastructure to Azure
- How to create a reliable process that will help you build quality into your software development process
- To test automation with VSTS

**VSH12 DevOps: A Catalyst for Enterprise Agility**
*Intermediate / Advanced*

**HEIDI ARAYA & ESTEBAN GARCIA**
Thursday, December 6, 1:00 – 2:15pm

Agile and DevOps are both common buzzwords and lots of organizations are “doing” them. Implementing frameworks such as Scrum/Kanban sometimes can make changes within an area of the company, but instituting DevOps essentials such as continuous integration, continuous deployment and continuous monitoring often require greater collaboration across teams in companies with functional structures. Find out how implementing Agile and DevOps practices at your organization can cause changes in mindsets, people, processes and tools, often leading to real organizational change and improved agility. After attending, listeners will leave with an understanding of the journeys we’ve seen to get there and the key drivers for a successful transformation.

You will learn:
- Typical challenges implementing Agile and DevOps in enterprise settings
- Ideas for overcoming these challenges and tips to get started
- Key drivers for a successful transformation

**VSH16 Scrum, Kanban or Scrumban?**
*Intermediate*

**HEIDI ARAYA**
Thursday, December 6, 2:30 – 3:45pm

Agile is on everyone’s minds today, as more and more organizations are eager to reap the benefits of rapid iterations using customer-centric approaches. Organizations tend to run to Scrum first because it’s the most recognized agile framework. But is Scrum always the right answer for a team and a business?

Heidi Araya discusses the types of scenarios and projects in which Scrum may not be a good fit. She shares other frameworks—including Kanban and Scrumban—as potential alternatives to consider to ensure teams and projects select the right fit and can deliver great software efficiently.

Some considerations include organizational culture, size of teams, team composition, types of work, industry requirements, overall project size and type of project. Go back to your organizations and confidently select the right frameworks for your current and future roles and projects—and explain to management why the framework chosen is appropriate.

You will learn:
- The basics of three agile frameworks
- About the similarities and differences between them
- How to select the best one for your particular situation

**Cloud, Containers and Microservices**

Nearly all organizations are exploring or embracing cloud computing. The concept of container technologies such as Docker and Kubernetes (aka K8s) are having a major impact on cloud computing, as well as software architecture. This is perhaps most clear when thinking about service-oriented, or microservice, software architectures and how they can be used to leverage cloud- and container-based environments. It’s hard to imagine any enterprise development scenario where one or more of these trends isn’t high on your list of critical skills!

This track includes coverage of the following:
- Azure Functions
- Building modern Web apps in Azure
- Introduction to Windows containers and Docker
- Microservices with Azure Kubernetes Services
- Azure, Windows and Xamarin

**VST03 Azure 101**
*Introductory*

**LAURENT BUGNION**
Tuesday, December 4, 9:15 – 10:30am

“There is no cloud, it’s just someone else’s computer ...” That’s true. But when this someone else is Microsoft, and takes care of all the maintenance of these huge server farms, you can redirect these resources used to take care of your own infrastructure to other important tasks, such as adding features for your users. However, at first sight, Azure and its huge offering can seem daunting for a new user. In this presentation, Laurent Bugnion, who until
recently didn’t know much about the cloud, will show you how he got started and how you, too, can take advantage of the services that the Microsoft cloud has to offer. Together we’ll discover the Azure Portal, as well as quite a few tools that make your life as a cloud developer easier.

**You will learn:**
- About the features and tools of Azure
- How Azure can immediately be helpful to you as a developer
- The basics of pricing and make sure you don’t waste money

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**VST05** Fast Focus: Serverless Computing: Azure Functions and Xamarin in 20 Minutes  
*Intermediate*  
**LAURENT BUGNION**  
**Tuesday, December 4, 1:30 – 1:50pm**

One of the most exciting recent additions to Azure is called Functions and it allows the developer to quickly build and deploy code to the cloud without a complicated setup. Also dubbed “serverless computing,” Azure Functions can be triggered by timers, HTTP calls or database operations, and can communicate with other Azure services or mobile and desktop applications such as those made with Xamarin. In this lightning talk, Laurent Bugnion, cloud developer advocate for Microsoft, will give you an introduction to Azure Functions and get you started with this exciting aspect of modern computing.

**You will learn:**
- What serverless computing is and that there’s actually a server
- How to quickly build Azure Functions in the Web portal and in Visual Studio
- How Xamarin and Windows applications can use Azure Functions fast

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**VST13** Azure, Windows and Xamarin: Using the Cloud to Power Your Cross-Platform Applications  
*Intermediate*  
**LAURENT BUGNION**  
**Tuesday, December 4, 2:45 – 4:00pm**

Most mobile applications are connecting to a server at some point, either to get data that needs to be shown to the user, or to save data collected by the mobile device. This is where Azure has the potential of making your life as a developer much easier. The cloud came a long way, and you can now build cloud infrastructure very easily and for a reasonable cost. New computing models like serverless functions or globally distributed databases are changing the game. What was earlier reserved to large firms with an army of IT pro consultants is now available for everyone with a Web browser. In this session, Microsoft’s Cloud Developer Advocate Laurent Bugnion will guide you through this journey and show you how Azure Functions, Cosmos DB, application services (Web apps and Web APIs), Visual Studio App Center, and other features and tools can be used in your cross-platform applications. He’ll also talk about the architecture of these mobile clients and see how the whole story can be tested.

**You will learn:**
- What each demonstrated service is used for in the context of a mobile application
- How these services are built in the Web portal and in Visual Studio
- How to architect native cross-platform applications to take full advantage of the power of Azure

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**VST17** HoloLens, Mixed Reality & VR Development with the Cloud  
*Intermediate / Advanced*  
**NICK LANDRY**  
**Tuesday, December 4, 4:15 – 5:30pm**

Mixed reality (MR) applications are built using the same tools and techniques employed in game development. From simple leaderboards and gamer accounts, to full multiplayer or even massively multiplayer online role-playing games (MMORPGs), the cloud simplifies the creation of connected games without any upfront investments. The cloud democratizes game development, putting infrastructures normally reserved for AAA studios into the hands of indie game devs. MR applications can also benefit from cloud back-ends for shared experiences between holographic and immersive users, remote avatars, loading dynamic assets and positional updates. In this session you’ll learn how to design and create Windows MR apps and games in Unity with a cloud back-end including Web APIs, cloud storage, state management, cognitive services and more. We’ll also look at innovative open source projects designed to accelerate the integration of cloud services in Unity and other MR or game development projects.

**You will learn:**
- The principles of cloud development and learn about common cloud gaming services
- How to integrate common cloud services in Unity projects for storage, shared experiences and multiplayer
- About key open source projects that facilitate the integration of cloud services in 3-D apps and games
**VSW03  Introduction to Windows Containers and Docker**  
*Intermediate*  
MARCEL DE VRIES  
Wednesday, December 5, 8:00 – 9:15am  
You’ve probably heard of the term Docker and that a lot of developers think it’s the next big thing since sliced bread. In this session I’ll introduce you to what containers are, what Docker is, how you can run your existing application on Docker and explain why this has so many advantages. I will demystify terms like Docker for Windows, Docker on Windows, Docker Swarm, container services and so on. After attending this session you’ll have a full understanding of what container technology is, what Docker brings to the table and how it can revolutionize the way you do software development in the future!  
You will learn:  
• What Docker is  
• About container clusters  
• How to use Docker and container services for faster software delivery

**VSW07  Microservices with Azure Kubernetes Service (AKS)**  
*Intermediate*  
VISHWAS LELE  
Wednesday, December 5, 9:30 – 10:45am  
Many are increasingly seeing microservices and containers as an architectural style of choice. Kubernetes is also gaining a lot of momentum. This session will look at key tenets of microservices. Then you’ll switch to practically applying these concepts to AKS, formerly known as Azure Container Service.  
You will learn:  
• About microservices and containers  
• Key Kubernetes concepts  
• How to set up and deploy applications to AKS

**VSW11  Programming with Microsoft Flow**  
*Introductory*  
WALT RITSCHER  
Wednesday, December 5, 2:00 – 3:15pm  
Here’s a familiar scenario. To deal with non-stop e-mail inflow, many of us create rules that manage our inbox. We’ve got rules that prioritize, categorize, forward, move and delete. But attempt to add even simple logic tests in the rules and you run into a wall. Taking the big-tool approach, you can create an Outlook add-in and use the full power of C# to tackle the problem. But not every programming job or workflow needs a high-powered toolset like C# or Visual Studio. For quick one-offs and simple tasks, you can fall back to more basic tools. With the cloud-based Microsoft Flow, you can quickly and easily build custom automations from your desktop, laptop or mobile device without needing to write a single line of code. Microsoft states that Flow is a tool for end users. However, for those of us who code, Microsoft Flow provides a quick way to create personalized workflows between applications. Don’t be too quick to judge, behind the scenes Flow is built on top of Azure Logic Apps. Flow has an impressive list of service connectors like SharePoint, Dynamics 365, Teams, Dropbox, Outlook, OneDrive, Yammer and MailChimp. This session shows how to get started with Flow and build interesting integrations with little or no code.  
You will learn:  
• How to create a flow  
• How to work with multiple service providers and connectors  
• How to build a flow with built-in templates

**VSW15  The Mystical World of I/O Bindings in Azure Functions**  
*Introductory*  
ASHLEY GRANT  
Wednesday, December 5, 4:00 – 5:15pm  
Maybe you’ve heard about “serverless” and how Azure Functions makes serverless architecture really easy, but have you looked at the plethora of options you have for inputs to and outputs from your Azure Functions? The list is long and continues to grow. In this session, we’ll explore many of the I/O binding options the Azure Functions platform provides. We’ll also look at how you can put some of the lesser-known bindings to use to simplify building real-world serverless applications. You’re not stuck building simple REST APIs with Azure Functions, and this session will help you get the knowledge you need to be successful building serverless applications with Azure Functions!  
You will learn:  
• To understand that there are I/O options in Azure Functions  
• How to work with the Azure Functions platform  
• To think about the Azure Platform more holistically
VISUAL STUDIO LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**App Dev Data**

Data has once again become one of the hottest topics in the industry. Advances in relational tools like SQL Server are exciting, but then there’s all the cool stuff happening around NoSQL, too! Add a healthy mix of cloud-hosted database offerings just to keep everyone on the edge of their seats. Combine the Data sessions at Visual Studio Live! with the content at SQL Server Live! and Artificial Intelligence Live! and you’ll be data-driven to the max! There’s no room for anyone to be complacent when it comes to data, and we’re here to keep you up-to-date.

This track includes coverage of the following:

- Azure Cosmos DB
- Entity Framework
- DevOps for SQL Server Database
- Unit Testing Entity Framework & ASP.NET MVC

**VSW10 DevOps for the SQL Server Database**

*Intermediate*

**BRIAN RANDELL**

**Wednesday, December 5, 2:00 – 3:15pm**

DevOps is hot, but the database is often the missing link. How do you manage the necessary changes needed to support your applications? How do you track these changes and follow a change from development to test to production? You need an effective database lifecycle management plan.

In this session, you’ll learn where the SQL Server database fits in to DevOps, and how you can use tools to extend your infrastructure to make the database a first-class citizen, just like your source code. You’ll see how to track changes with version control; create update packages; and deploy to multiple environments with complete automation like development, test, user acceptance training (UAT) and production. You’ll bring things under control with database lifecycle management (DLM). You’ll learn the process and see examples using the Visual Studio SQL Server Database Tools, Team Foundation Server Team Build, Release Management and custom tools from Redgate.

You will learn:
- Why you need DevOps for your database
- How to define a good DLM process
- How to use Microsoft and Redgate tools to implement the DLM process

**VSW14 Entity Framework for Enterprise Applications**

*Intermediate*

**BENJAMIN DAY**

**Wednesday, December 5, 4:00 – 5:15pm**

What do you do when your simple Entity Framework app isn’t so simple anymore? The entity relationships are starting to get complex. You’re getting worried about performance problems. Can you even use EF in a high-performance, scalable Web application?

In this session, we’ll go beyond the simple Code First EF cases and get into more complex class designs and relationships. We’ll talk about how to handle the sticky issues around lazy loading, concurrency, cascading deletes, occasional connectedness and performance testing. Plus, along the way we’ll talk strategy for DevOps, stored procedures, unit testing and incremental deployment, too.

You will learn:
- Controlling and planning for unpredictable behaviors like lazy loading and cascading deletes
- Architecting your application to avoid “getting into trouble”
- Advanced property mappings and associations

**VSH10 Non-Useless Unit Testing Entity Framework & ASP.NET MVC**

*Advanced*

**BENJAMIN DAY**

**Thursday, December 6, 1:00 – 2:15pm**

We all know that we should be writing unit tests for our applications. But what do you do about that database code? Data access code is famous for wrecking our dreams for a clean, unit-testable application. Add ASP.NET MVC and application security into the mix and those unit-testing dreams just drift further and further away.

It doesn’t have to be that way. Heck! It’s not even that hard to do! It just takes a little bit of planning and some basic design patterns. In this session, we’ll go through how to design and build your ASP.NET MVC and Entity Framework applications so that you’ve got a clean, maintainable, and unit-testable design.

You will learn:
- How to design a testable ASP.NET app using EF
- How to unit test security-related code in ASP.NET MVC controllers
- Gotchas for testing EF code

**VSH14 Finding Your Place in the Cosmos: When & Why You Should Consider Azure Cosmos DB**

*Introductory*

**ERIC POTTER**

**Thursday, December 6, 2:30 – 3:45pm**

Azure Cosmos DB gives you exciting new ways to access your data. You have new storage paradigms. You can connect to it from your C#, JavaScript, Python or Java application. You can write stored procedures in JavaScript. You can easily integrate with Azure Functions. You get all of this with incredible access speeds.
In this presentation, you’ll learn what you can do with Cosmos DB. You’ll learn how you can benefit from the new storage models that Cosmos DB provides. You’ll learn about the various options for storing and retrieving data. You’ll be shown what SDKs are available. Most important, you’ll learn when and why you would want to consider using it.

You will learn:
• An overview of CosmosDB
• About the storage paradigms in CosmosDB
• How to connect to CosmosDB with C#

Developing New Experiences

The expectations around “user experience” are being upended right before our eyes. In today’s world you need to understand not only graphical interactions with keyboard, mouse, touch, and stylus, but also voice, gesture, 3-D, mixed reality, and more. Fortunately, we’ve got you covered with content from phones, PCs and voice to augmented and mixed reality.

This track includes coverage of the following:
• Xamarin.Forms
• Making XAML do things you didn’t realize it could
• Cross-platform development with Xamarin and CSLA .NET
• Using Azure to power cross-platform client apps
• Modernizing the enterprise desktop application
• Busy developer’s guide to Kotlin

VST02  Busy Developer’s Guide to Kotlin
Introductory
TED NEWARD
Tuesday, December 4, 9:15 – 10:30am
With the release of Kotlin, JetBrains makes its first serious dive into the programming language space, and by all accounts, it’s quite a graceful dive. Kotlin integrates much of the object-oriented thinking over the last 30 years together with several new ideas from the world of functional programming to create a language that’s much of the best of both worlds, without the ceremony and legacy that bedevils them. No language is perfect, and Kotlin certainly has its quirks, but in this session, we’ll go over Kotlin’s syntax and semantics, and who knows? Maybe this becomes your next language of choice.

You will learn:
• Background on Kotlin for Android
• Some thoughts on a new programming language
• To have a little fun

VST07  Fast Focus: Xamarin.Essentials - Cross-Platform APIs for Your Mobile Apps
JAMES MONTEMAGNO
Tuesday, December 4, 1:30 – 1:50pm
Learn how to use Xamarin.Essentials, a powerful cross-platform library that provides a clean and lightweight API to access common features on mobile platforms, in your cross-platform C# apps without writing abstractions or platform-specific code.

VST12  Xamarin.Forms Takes You Places!
Introductory
SAM BASU
Tuesday, December 4, 2:45 – 4:00pm
You’ve heard the buzz—target every mobile platform from a single C#/XAML code base. Sounds too good to be true? The story is actually even better—let’s unpack the promise of Xamarin.Forms. The reach goes beyond just mobile platforms of iOS, Android and Windows—did you know your Xamarin.Forms apps could target macOS, smart watches, smart TVs, refrigerators and HoloLens? And it’s not just futuristic devices and platforms, you could take Xamarin.Forms goodness back to Windows Presentation Foundation and even the Web! This isn’t utopia, but an absolute reality today. Let’s dive into each platform and unearth the magic behind the cross-platform mobile development democratization for .NET developers.

You will learn:
• The promise of Xamarin.Forms
• About the reach of Xamarin.Forms across platforms
• How to share code across Web, desktop and mobile

VSW02  Essential Tools for Xamarin Developers!
Intermediate
SAM BASU
Wednesday, December 5, 8:00 – 9:15am
Cross-platform mobile development has been democratized for .NET developers—thanks to Xamarin and Microsoft. However, professional Xamarin development isn’t a piece of cake. Sure, tooling has come a long way, but successful mobile apps need a lot more.

Do you understand the whole Xamarin technology stack?
Do you know what platforms to target and maximize code reuse? Let’s do a run-down of the essential tools, frameworks and utilities that should be in every Xamarin developer’s arsenal. The ubiquitous IDEs, necessary plug-
ins, cloud back-ends, deployment tools, testing solutions and polished UI—all ready for your app development pleasure. How about adding some cloud-powered AI or Alexa voice assistance to your app? What can you do to delight your users, maintain developer sanity and deliver high-quality apps? Let’s stop reinventing the wheel and ship apps faster with help from the right tools!

You will learn:
• Must-have tooling for Xamarin devs
• About intelligent cloud services
• The DevOps lifecycle for mobile apps

VSW06 Cross-Platform App Dev with Xamarin and CSLA .NET
Intermediate
ROCKFORD LHOTKA
Wednesday, December 5, 9:30 – 10:45am
In today’s world, you may write your smart client app in Universal Windows Platform (UWP), Xamarin, Windows Presentation Foundation (WPF) or even Windows Forms. In each case, your app probably calls back-end services and needs to interact with app servers. Some or all of your business logic may run on the client, the app server or both. That’s ideal for the balance between user interactivity, performance, scalability and security. The widely used open source CSLA .NET framework helps you create a reusable, scalable, and cross-platform portable business layer that lets your application run on multiple types of client devices while sharing business logic between the clients and your app server. This session is an end-to-end walk-through of how this works and how you can benefit.

You will learn:
• How to reuse your business logic across platforms
• How CSLA .NET creates a home for your business logic
• How to minimize code changes on a per-platform basis

VSH02 Learning the Language of HTTP for a Better Data Experience in Your Mobile Apps
Introductory / Intermediate
CHRISS WOODRUFF
Thursday, December 6, 8:00 – 9:15am
You know you have to have a great experience when you develop your mobile applications, right? The greatest experience you can give your users centers around their data. There are ways to improve your mobile applications and in this session, you’ll learn and understand the language of HTTP for a better data experience. Come see why you should know the language of HTTP before developing your REST APIs and the mobile apps that consume them. You’ll be a data experience expert when you leave the room after this informative session.

You will learn:
• The HTTP fundamentals, including request and response structures and HTTP codes
• How to build your Web APIs with better understanding of HTTP
• Why understanding HTTP fully can make you a better Web and mobile app developer

VSH06 Making XAML Do Things You Didn’t Realize It Could
Intermediate
BILLY HOLLIS
Thursday, December 6, 9:30 – 10:45am
Let me guess. You learned just enough XAML to get by. You know how to create typical business application screens, but you don’t have the time to learn enough to really drive XAML to its potential. This session is your shortcut. You’ll see tangible techniques of advanced XAML, inspired by real projects. If you’re a XAML noob, you can come and see what’s possible, but these demos are for people who already know the basics of XAML and want to go deeper.

You will learn:
• Layering, composition and other techniques to produce results in XAML you can’t get in other UI technologies
• A real-world example: How to show time-based data with advanced layout
• An overview of several advanced scenarios, including dashboards, data visualization and control creation

VSH11 Modernizing the Enterprise Desktop Application
Intermediate
OREN NOVOTNY
Thursday, December 6, 1:00 – 2:15pm
Come learn about the future of your Windows Presentation Foundation (WPF) and Windows Forms applications. Windows, .NET and Visual Studio are making it easy to incrementally modernize your existing applications with Windows 10 features. Containerize your application for compatibility and installation isolation, take advantage of the new app local .NET Core 3.0 runtime and begin integrating new Windows 10 UI features with just a few clicks in Visual Studio. Modern applications are deeply connected to the people you work with and know which devices you’re using. We’ll cover the ways that Microsoft 365 and the Microsoft Graph allow your existing application to connect users and help them complete tasks.

You will learn:
• How to use UWP XAML Islands to enhance your WPF and Windows Forms applications with modern features
• About the new containerization capabilities of MSIX
• How .NET Core 3 enables your desktop applications to move forward with the latest runtime features
**Delivery and Deployment**

Every developer knows that there’s more to software development than just code and tooling. The practices and techniques we use to understand and analyze the problem space, to manage interpersonal communications and conflicts, and other patterns and practices are key to success. Modern software teams understand that people are the difference and building better teams means building better solutions.

Topics in this track include:
- Getting Git
- What developers want
- Application security foundation
- How to interview a developer
- Writing testable code with dependency injection

**VST06 Fast Focus: Getting Git**

*Introductory*

**JASON BOCK**

Tuesday, December 4, 1:30 – 1:50pm

Git is fast becoming the version control system of choice for developers. But do developers know how Git works or why it’s so desirable to use? In this session, we’ll cover the essentials of Git so you can use it effectively.

**You will learn:**
- See why Git is appealing
- Understand the fundamentals of Git
- Gain knowledge on how to use Git with different tools

**VST14 Writing Testable Code and Resolving Dependencies – DI Kills Two Birds with One Stone**

*Introductory / Intermediate*

**MIGUEL CASTRO**

Tuesday, December 4, 2:45 – 4:00pm

Dependency injection (DI) is one of those terms advanced programmers throw out with an expectation and assumption of full understanding. People often ask for a recommendation for a good DI product and want to learn how to use it. When discussing the subject, it becomes immediately apparent many don’t even know what they’re asking about. It’s easy to get infatuated by a cool buzz phrase, especially when you hear so many others using it. But to truly understand something you need to start by understanding the problem spaces that it’s trying to solve. To write testable software, you need to understand and embrace abstractions and injecting them. But then you introduce the problem of having to resolve dependency chains. This is where using a DI container helps you solve both of these issues. During this session, you’ll learn how to make your code testable and maintainable with the help of a DI container.

**You will learn:**
- How to demonstrate problem code
- About abstractions for across-the-board testability
- How to use a full-featured DI container

**VSH03 How to Interview a Developer**

*Introductory*

**BILLY HOLLIS**

Thursday, December 6, 8:00 – 9:15am

Most developers end up interviewing candidates for their team at some point, but few receive any instruction in how to do it. In this session, a veteran team leader and developer with more than 400 interviews under his belt will cover the basics, including general approach, questions to ask, and other tips for more reliable evaluation before, during, and after interviews. Previous attendees for this session have said it yielded many tangible benefits to their team, including an increase in their retention rate.

**You will learn:**
- The preparation you need to take to make an interview productive
- Potential questions to ask interviewees, and learn what each question is designed to discover
- How to avoid tipping off interviewees about the answers you’d like to hear

**VSH07 What Developers Want**

*Intermediate*

**RABEB OTHMANI**

Thursday, December 6, 9:30 – 10:45am

There is so much going on in the tech world nowadays, new programming languages, new APIs and new tools every day. Trying to keep up with all of it can be challenging. So how do we guarantee a smooth developer experience?

In this talk, I’d like to share with you what I’ve learned in one year of advocacy. What developers really want from an API, from clean, simple code to great documentation. How do we get developers excited about using our APIs with .NET?

**You will learn:**
- How to write simple, intuitive APIs
- Why documentation matters
- Why communication and feedback matter
VSH15 Pushing Left Like a Boss: Application Security Foundation  
*Intermediate*  
TANYA JANCA  
Thursday, December 6, 2:30 – 3:45pm

With incident response and penetration testing currently receiving most of our application security dollars, it would appear that industry has decided to treat the symptom instead of the disease. “Pushing left” refers to starting security earlier in the SDLC; addressing the problem throughout the process. From scanning your code with a vulnerability scanner to red team exercises, developer education programs and bug bounties, this talk will show you how to ‘push left’, like a boss.

**You will learn:**  
- What application security (AppSec) is and why it matters  
- What each common AppSec activities is, how it works and when to do it  
- What you as an attendee can do to “push left” and be a part of application security, immediately after the talk is over

.NET and More

At the heart of the Microsoft development experience is the .NET Framework. But these days there’s so much more than just that original framework. You also need to understand .NET Standard, .NET Core, mono and Xamarin. Not to mention the cool features added to (and coming in the future) C# and Roslyn, and how these all integrate into Visual Studio and Visual Studio Code. These are the base-level tools you need to know for success in the Microsoft development world.

Topics in this track include:

- What’s new in C#  
- .NET Core  
- Sharing code between full .NET, .NET Core, and mono with .NET Standard  
- Roslyn  
- Creating your own code analyzers  
- Interface-based programming  
- Programming with delegates

VST10 Fast Focus: Get Your Full .NET Code into .NET Standard  
*Introductory / Intermediate*  
ROCKFORD LHOTKA  
Tuesday, December 4, 2:00 – 2:20pm

At some point, you’re going to need to get your existing code base running on .NET Core, Universal Windows Platform (UWP), Xamarin or another flavor of .NET. In 20 minutes you’ll learn the options available to you as you make that migration.

You will learn:

- About shared projects  
- About Portable Class Libraries (PCLs)  
- About .NET Standard and the new .csproj file format

VST16 Busy .NET Developer’s Guide to Python  
*Introductory*  
TED NEWARD  
Tuesday, December 4, 4:15 – 5:30pm

Python is a general-purpose programming language and platform that provides a rich ecosystem of powerful features and libraries. As a dynamically typed object-oriented language using “significant whitespace” to denote scope blocks (instead of lexical markers), Python is relatively easy for the .NET developer to pick up, and Python’s success in the world of “data science” makes it a great “second language” for any .NET developer.

You will learn:

- Some background on Python  
- Some of the core Python concepts  
- How to move around in the Python world

VSW12 What’s New in C# 7  
*Intermediate*  
PHILIP JAPIKSE  
Wednesday, December 5, 2:00 – 3:15pm

C# 7, 7.1 and 7.2 bring a lot of features into the language. In this session, I show you all of the new features and when to use them.

You will learn:

- New features in C# 7, 7.1, 7.2  
- When to use the new features  
- How to enable them in your projects
VISUAL STUDIO LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**VSW16  Signing Your Code the Easy Way**
*Introductory*
OREN NOVOTNY
Wednesday, December 5, 4:00 – 5:15pm
Dive into code signing and learn why you want to be attaching signatures to your code and how to quickly and securely incorporate code signing into your CI/CD pipeline.

**You will learn:**
- About code signing and Authenticode
- How to get a code signing service set up quickly and securely for your organization that supports any Authenticode-supported file type, Windows Store packages (for side-loading), ClickOnce and NuGet packages
- See how Azure Key Vault can protect your code-signing certificates in its Hardware Security Module (HSM)

**VSH09  Get Func-y: Understanding Delegates in .NET**
*Introductory / Intermediate*
JEREMY CLARK
Thursday, December 6, 1:00 – 2:15pm
Delegates are waiting to make our code more flexible and extensible. I'll take a look at what delegates are and dispel the mystery of the built-in Func and Action delegate types. Jumping into code, I'll use them to make classes more flexible and even use multi-casting to kick off a series of operations with a single call. Along the way, you'll see that lambda expressions can add readability to your code (yes, I actually said that). And this is a great jumping-off point for heading into LINQ, parallel programming and functional programming.

**You will learn:**
- What delegates are
- How to use delegates for extensibility
- How to get a handle on Func, Action and lambda expressions

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**VSH13  IEnumerable, ISaveable, IDontGetIt: Understanding .NET Interfaces**
*Introductory / Intermediate*
JEREMY CLARK
Thursday, December 6, 2:30 – 3:45pm
We all want code that's easy to maintain, extend and test. C# interfaces are here to help. I'll explain how you can use interfaces effectively in your code, starting at the beginning ("What are interfaces?") and then explore why you want to use them. Along the way I'll use existing interfaces, implement own interfaces, and take a look at dynamic loading, unit testing and dependency injection. All of which is made easier with interfaces.

**You will learn:**
- How to add abstraction for awesome results
- What the differences are between interfaces and abstract classes
- How to create and use your own interfaces

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**Full Stack Web Development**
Web development has become the dominant approach for building enterprise software. To provide your best on every project you need to understand the server and browser client worlds. On the server there's ASP.NET classic, and ASP.NET Core, both with versions of MVC and support for building services. The browser client is evolving rapidly, with constant changes and updates to JavaScript, TypeScript, Angular, Vue and other related frameworks. But more than this, there's now WebAssembly and the ability to run other languages natively in the browser, including C/C++, C# and many more. Your need to keep up-to-date with all these technologies has never been greater, and we're here to give you the knowledge you need!

Topics in this track include:
- ASP.NET Core 2
- Introduction to webpack
- Angular application testing
- Authentication and Authorization with ASP.NET Core
- A tour of WebAssembly
- JavaScript without webpack, transpilers or frameworks
- Electron: Desktop development for the Web
- Encrypting the Web
- Advanced Fiddler techniques
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<thead>
<tr>
<th>Session ID</th>
<th>Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>VST01</td>
<td><strong>ASP.NET Core 2 for Mere Mortals</strong></td>
<td>Intermediate</td>
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<td><strong>PHILIP JAPIKSE</strong></td>
<td><strong>Tuesday, December 4, 9:15 – 10:30am</strong></td>
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<td></td>
<td>ASP.NET has changed in revolutionary ways. In this session I show you</td>
<td>What you need to know to move to ASP.NET Core for Web applications and RESTful</td>
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<td>what features such as tag helpers and view components</td>
<td>services.</td>
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<td>The configuration of the HTTP pipeline and DI</td>
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<td>About the recent updates to ASP.NET Core (package mgmt, bundling/minification)</td>
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<td>VST08</td>
<td><strong>Fast Focus: Getting Started with ASP.NET Core 2.0 Razor Pages</strong></td>
<td>Introductory</td>
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<td><strong>WALT RITSCHER</strong></td>
<td><strong>Tuesday, December 4, 2:00 – 2:20pm</strong></td>
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<td>Razor Pages are a new feature of ASP.NET Core 2.0 that brings a</td>
<td>How to generate server-side HTML content in the Microsoft MVC world.</td>
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<td>simple page-based development model to .NET Core. While they are</td>
<td>This session explores how the Pages framework operates and how it fits into</td>
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<td>similar to Razor Views in MVC, they have interesting differences.</td>
<td>the standard ASP.NET Core MVC infrastructure. I’ll look at scenarios where</td>
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<td>Essentially, they’re the preferred way to generate server-side HTML</td>
<td>Razor pages are a good choice and discuss when it’s best stick with MVC. They</td>
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<td>content in the Microsoft MVC world.</td>
<td>see how all your favorite concepts (like model binding, validation, filters,</td>
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<td>This session explores how the Pages framework operates and how it</td>
<td>routing and action results) work in this new system. And you’ll see how</td>
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<td>fits into the standard ASP.NET Core MVC infrastructure. I’ll look at</td>
<td>Razor pages simplify many common tasks when building basic Web pages.</td>
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<td>scenarios where Razor pages are a good choice and discuss when it’s</td>
<td>You will learn:</td>
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<td>best stick with MVC. You’ll see how all your favorite concepts</td>
<td>• How handlers work in Razor code</td>
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<td>(like model binding, validation, filters, routing and action results)</td>
<td>• About controllerless MVC</td>
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<td>work in this new system. And you’ll see how Razor pages simplify</td>
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<td>many common tasks when building basic Web pages.</td>
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<td>VST11</td>
<td><strong>Introduction to Webpack</strong></td>
<td>Introductory / Intermediate</td>
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<td><strong>CHRIS KLUG</strong></td>
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<td>As our Web development code moves further and further toward the</td>
<td>Unfortunately, getting started with webpack offers a bit of a hurdle to get</td>
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<td>front-end, with the browser becoming a host for running complex</td>
<td>over. Webpack configurations can look fairly complicated, and getting started</td>
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<td>programs, and not just to show information, the need for managing</td>
<td>can seem like a daunting task! But with large JavaScript frameworks like</td>
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<td>our front-end resources becomes bigger ... and more difficult. There</td>
<td>Angular and Aurelia buying into it, developers don’t have much choice. You</td>
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<td>are several ways to do this, but currently it seems as though</td>
<td>have to understand it!</td>
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<td>VST15</td>
<td><strong>Angular Application Testing</strong></td>
<td><strong>Outside the Church of TDD</strong></td>
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<td><strong>CHRIS KLUG</strong></td>
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<td><strong>Tuesday, December 4, 4:15 – 5:30pm</strong></td>
<td>I hate writing tests! I said it. I think TDD gets in my way, and it annoys</td>
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<td>I hate writing tests! People who preach it annoy me! People who</td>
<td>me! People who tell me that, “I just don’t understand it,” annoy me. Not to</td>
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<td>tell me that, “I just don’t understand it,” annoy me. Not to mention</td>
<td>mention the ones that say, “Real professional developers use TDD.” Unfortunately,</td>
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<td>the ones that say, “Real professional developers use TDD.”</td>
<td>this “religious” view on testing has also kept me away from writing tests in</td>
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<td></td>
<td>Unfortunately, this “religious” view on testing has also kept me</td>
<td>my Angular applications for years. Until I decided to give it a try on my own</td>
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<td></td>
<td>away from writing tests in my Angular applications for years.</td>
<td>terms. And you wouldn’t believe what happened next ...</td>
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<td></td>
<td>In this talk you’ll get an introduction to testing Angular</td>
<td>In this talk you’ll get an introduction to testing Angular applications from</td>
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<td>applications from a person that dislikes TDD with a passion.</td>
<td>a person that dislikes TDD with a passion. It won’t be the usual sermon about</td>
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<tr>
<td></td>
<td>It’s all about testing Angular applications in a pragmatic way.</td>
<td>how great testing is. It’s all about testing Angular applications in a pragmatic</td>
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<td></td>
<td>It will give you enough to understand how to write the tests, but</td>
<td>way. It will give you enough to understand how to write the tests, but also</td>
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<td></td>
<td>also information about what benefits different tests can give you,</td>
<td>information about what benefits different tests can give you, and why you</td>
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<td></td>
<td>and why you might want to use them. Even if you don’t like writing</td>
<td>might want to use them. Even if you don’t like writing tests, like me, I have</td>
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<td>tests, like me, I have come to the conclusion that some of them</td>
<td>come to the conclusion that some of them actually make my development life less</td>
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<tr>
<td></td>
<td>actually make my development life less annoying.</td>
<td>annoying. DISCLAIMER: If you are a TDD person, you are more than welcome, but</td>
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<tr>
<td></td>
<td>I have come to the conclusion that some of them actually make my</td>
<td>accept the fact that you will not see tests written up front. You might also</td>
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<tr>
<td></td>
<td>development life less annoying. DISCLAIMER: If you are a TDD person,</td>
<td>want to know that there will</td>
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<td>you are more than welcome, but accept the fact that you will not</td>
<td>likely be personal opinions expressed about testing that you do not agree with.</td>
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<td>see tests written up front. You might also want to know that there</td>
<td>It’s purely about writing tests, and their potential benefits, and not about</td>
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<td>will likely be personal opinions expressed about testing that you</td>
<td>“religion.” You will learn:</td>
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<td>do not agree with. It’s purely about writing tests, and their</td>
<td>• What type of testing is available in Angular</td>
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<tr>
<td></td>
<td>potential benefits, and not about “religion.”</td>
<td>• What testing should be used for</td>
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<tr>
<td></td>
<td>You will learn:</td>
<td>• How tests can benefit you even if you don’t do TDD</td>
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</tbody>
</table>
VISUAL STUDIO LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**VSW01** The Whirlwind Tour of Authentication and Authorization with ASP.NET Core  
*Introductory / Intermediate*  
**CHRIS KLUG**  
*Wednesday, December 5, 8:00 – 9:15am*  
Authentication and authorization is not a fun topic for most people. It’s generally that thing that has to be there, but nobody really cares about. And on top of that, every time the requirements are a little different. And every time we have to figure out how to write all the plumbing to get it done properly. It’s security, after all …

In ASP.NET Core, Microsoft has made it fairly easy to get it all done. In most cases, it’s only a few lines of code and some minor configuration, and you’re up and going. However, if you don’t know the lines of code and the config, it can be difficult.

In this presentation, you’ll see a whole heap of different types of authN and authZ being configured and used. There will be social logins, local logins, AD-based logins, and even token-based authentication for SPAs. Basically, everything you need to get up and running when it comes to authenticating your users in ASP.NET Core.

**You will learn:**  
• How authentication is added to ASP.NET Core applications  
• How the authentication system can be used to enable multiple forms of authentication  
• When to use which type of authentication provider

**VSW05** Assembling the Web - A Tour of WebAssembly  
*Introductory*  
**JASON BOCK**  
*Wednesday, December 5, 9:30 – 10:45am*  
WebAssembly … what exactly is it? Is it a new virtual machine? A way to create a binary version of JavaScript? A new standard to get everyone to code in C/C++ for the Web? In this session, I’ll demystify WebAssembly, demonstrate exactly what it is, and provide insight into how this will affect JavaScript and Web development in the future.

**You will learn:**  
• What WebAssembly is all about  
• How WebAssembly works and see it in action  
• About this new aspect of web development

**VSW09** No Strings Attached: JavaScript Without Webpack, Transpilers or Frameworks  
*Introductory / Intermediate*  
**ASHLEY GRANT**  
*Wednesday, December 5, 2:00 – 3:15pm*  
Writing JavaScript used to mean a tangled mess of hacks to avoid global variables, jQuery and oh so many callbacks. ES2015 and beyond have changed all that. I’ll show you how to migrate a jQuery-based Web site to a more modern foundation, and we’ll do it without using any of those JavaScript Frameworks that keep popping up! You’ll learn how modern browser JavaScript engines provide a great place to write more readable and maintainable code, and you’ll see that you often don’t need polyfills or transpilers to use these features!

**You will learn:**  
• What modern JavaScript is and become more familiar with it

**VSW13** Electron: Desktop Development for Web  
*Intermediate*  
**CHRIS WOODRUFF**  
*Wednesday, December 5, 4:00 – 5:15pm*  
Imagine if you will, your manager asks you to develop a new desktop application. You’re so used to Web development that you don’t know how to get started. What should you do? Dig out your old Visual Basic 6 books or learn a new technology? Better yet, keep those Web skills and use Electron. Electron is the cross-platform application shell GitHub originally built for the Atom editor. The focus of this talk will allow you to leave with the starting skills to set up your development environment, generate your starter project and build some business logic. We’ll also start building a killer UX with the Photon control kit.

**You will learn:**  
• The fundamentals of developing Electron apps  
• How to create custom menus and notifications for an enhanced desktop experience  
• How to build and package your Electron apps, as well as create installers for apps

**VSH01** Encrypting the Web  
*Intermediate*  
**ROBERT BOEDIGHEIMER**  
*Thursday, December 6, 8:00 – 9:15am*  
Does your entire Web site require HTTPS? If it doesn’t now, it better soon! The Chrome team just announced starting in July 2018 it will label all HTTP pages as “not secure.” Most browsers also require HTTPS to use new features like HTTP/2, service workers and progressive Web apps. Discover the many benefits of using HTTPS.
beyond just confidentiality, including integrity and trust. Review adoption strategies, including how to use HTTP response headers such as Strict-Transport-Security (HSTS) and Content-Security-Policy. Learn about the misconceptions of HTTPS, and that it isn’t as difficult to implement as you think.

You will learn:
• The common misconceptions of HTTPS
• The major benefits of a Web site that completely uses HTTPS
• Techniques for converting your existing Web site

VSH05 Advanced Fiddler Techniques
Intermediate / Advanced
ROBERT BOEDIGHEIMER
Thursday, December 6, 9:30 – 10:45am
Fiddler is a great free Web diagnostic tool that nearly everyone uses, but typically only for very basic things. If all you need is to see the requests made between the browser and Web server, the browser devtools can do that. Fiddler has many more advanced features of which most developers are unaware. It can be used to capture traffic from smartphones, tablets and non-Windows platforms! Discover the power of manipulating requests and responses with breakpoints, the auto responder and a visual composer. Review popular extensions for formatting JavaScript, syntax highlighting and detecting image bloat. Go beyond the basics and learn the full capabilities of the tool and how it can improve your Web development and debugging techniques today!

You will learn:
• How to troubleshoot problems on phones, tablets and non-Windows devices
• How to find extensions that add new capabilities to Fiddler
• How to manipulate requests and responses to see how the browser and Web server will act differently

“THERE WERE LOTS OF DEVELOPER FOCUSED CLASSES, AND THEY AREN’T ALL FOCUSED ON NEW TRENDY THINGS. THEY ACTUALLY FOCUS ON THINGS THAT ARE PRACTICAL AND I SHOULD HAVE LEARNED THEM A LONG TIME AGO.”

- Thomas M. Adams, i360
VISUAL STUDIO LIVE!
CONFERENCE CO-CHAIRS
AND ADVISORY BOARD

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Consultant / Trainer

Marcel de Vries
CTO, Xpirit

Colin Dembovsky
Solution Architect, 10th Magnitude

Esteban Garcia
Founder and Chief Technologist,
Nebbia Technology

Ashley Grant
Community Lead for the
Aurelia JavaScript Framework

Billy Hollis
XAML slinger

For full speaker bios, go to live360events.com/orlando
VISUAL STUDIO LIVE! CONFERENCE SPEAKERS (continued)

Tanya Janca  
Senior Cloud Advocate, Microsoft

Philip Japikse  
Developer, Coach, Author, Teacher

Chris Klug  
Senior Software Developer, Tretton37

Nick Landry  
Senior Software Engineer, Microsoft

Vishwas Lele  
CTO, Applied Information Sciences

Rockford Lhotka  
CTO, Magenic

James Montemagno  
Principal Program Manager – Mobile Developer Tools, Microsoft

Ted Neward  
Director, Developer Relations, Smartsheet.com

Oren Novotny  
Chief Architect, DevOps & Modern Software, BlueMetal

Rabeb Othmani  
Developer Advocate, Nexmo

Eric Potter  
Software Architect, Aptera Software

Walt Ritscher  
Senior Staff Instructor, LinkedIn Learning / Lynda

Chris Woodruff  
Developer Advocate, JetBrains

For full speaker bios, go to live360events.com/orlando
SQL Server™ LIVE!
TRAINING FOR DBAs AND IT PROS

Data. Driven.
### AGENDA AT-A-GLANCE

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 7:30 AM    | 9:00 AM  | SQL Server Live! Full Day Hands-On Lab: Sunday, December 2, 2018  
Registration • Coffee and Morning Pastries |
| 9:00 AM    | 6:00 PM  | SQS01 Hands-On Lab: Developer Dive into SQL Server - Leonard Lobel |
| 2:00 PM    | 7:00 PM  | Pre-Conference Registration - Royal Pacific Resort Conference Center |
| 7:00 AM    | 8:30 AM  | SQL Server Live! Pre-Conference Workshops: Monday, December 3, 2018  
Registration • Coffee and Morning Pastries |
| 8:30 AM    | 5:30 PM  | SQM01 Workshop: Planning SQL Server Solutions in a Physical and Cloudy World - Allan Hirt  
SQM02 Workshop: How Data Science Makes Your Data Warehouse Relevant - Bradley Ball, Josh Luedeman, & Jorge Segarra |
| 6:30 PM    | 8:00 PM  | Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group |
| 7:00 AM    | 8:00 AM  | SQL Server Live! Day 1: Tuesday, December 4, 2018  
Registration • Coffee and Morning Pastries |
| 8:00 AM    | 9:00 AM  | SQL Server Live! & ARTIFICIAL INTELLIGENCE LIVE! KEYNOTE: To Be Announced |
| 9:15 AM    | 10:30 AM | SQT01 Availability Fundamentals for SQL Server - Allan Hirt  
SQT02 What’s New with Azure Data Factory - Josh Luedeman  
SQT03 Azure Cosmos DB Part I - Introduction to Cosmos DB - Leonard Lobel |
| 10:30 AM   | 11:00 AM | Networking Break • Visit the EXPO - Pacifica 7 |
| 11:00 AM   | 12:00 PM | LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6 |
| 12:00 PM   | 12:45 PM | Lunch • Visit the EXPO |
| 12:45 PM   | 1:30 PM  | Dessert Break • Visit the EXPO |
| 1:30 PM    | 1:50 PM  | SQT04 Fast Focus: SQL Server Data Security and Privacy Features - Thomas LaRock  
SQT05 Fast Focus: Common T-SQL Coding Mistakes and How to Fix Them - Amy Herold |
| 2:00 PM    | 2:20 PM  | SQT06 Fast Focus: Graph DB Support in SQL Server - Karen Lopez  
SQT07 Fast Focus: SQL Server Execution Plans - Grant Fritchey |
| 2:20 PM    | 2:45 PM  | Networking Break • Visit the EXPO - Pacifica 7 |
| 2:45 PM    | 4:00 PM  | SQT08 Data Protection and Privacy in the Database World - Grant Fritchey  
SQT09 Introduction to SQL Server Essential Concepts - Bradley Ball  
SQT10 Parameterization and Performance in SQL Server - Mindy Curnutt |

Sessions and speakers subject to change.
### AGENDA AT-A-GLANCE (continued)

<table>
<thead>
<tr>
<th>Business Intelligence</th>
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<th>SQL Server Features &amp; Components</th>
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<th>SQL Server Performance Tuning and Optimization</th>
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<tbody>
<tr>
<td><strong>SQL Server Live! Day 1: Tuesday, December 4, 2018 (Continued)</strong></td>
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<tbody>
<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td><strong>SQT11</strong> Exploring Execution Plans - Grant Fritchey</td>
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<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Exhibitor Reception - Pacifica 7</td>
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| **SQL Server Live! Day 2: Wednesday, December 5, 2018** |

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<tr>
<th>START TIME</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>SQW01</strong> Top Tips for Deploying AGs and FCIs On Premises or In the Cloud - Allan Hirt</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>SQW04</strong> What’s New in the 2017 Query Store - Janis Griffin</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td><strong>LIVE! 360 KEYNOTE: Enterprise Transformation (And You Can Too)</strong> Donovan Brown, Principal DevOps Manager, Cloud Developer Advocacy Team, Microsoft</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Birds-of-a-Feather Lunch</td>
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<tr>
<td>1:30 PM</td>
<td>2:00 PM</td>
<td>Dessert Break • Visit the EXPO</td>
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<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td><strong>SQW07</strong> Leveraging Data Value with Azure Data Catalog - Karen Lopez</td>
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<tr>
<td>3:15 PM</td>
<td>4:00 PM</td>
<td>Networking Break • Visit the EXPO • Expo Raffle @ 3:30 p.m. - Pacifica 7</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td><strong>SQW10</strong> The New Rules of SQL Server Monitoring - Grant Fritchey</td>
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<tr>
<td>7:30 PM</td>
<td>9:00 PM</td>
<td>Live! 360 Dessert Luau - Wantilan Pavilion</td>
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| **SQL Server Live! Day 3: Thursday, December 6, 2018** |

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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>SQH01</strong> Cosmos DB for SQL Server Pros - David Klee</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>SQH04</strong> HiHo! HiHo! SQL Server on Linux, We Go! - Janis Griffin</td>
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</tbody>
</table>

Sessions and speakers subject to change. Continued next page.
## AGENDA AT-A-GLANCE (continued)

<table>
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<tr>
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### SQL Server Live! Day 3: Thursday, December 6, 2018 (Continued)

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<th>Session Title</th>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>SQL SERVER LIVE! &amp; ARTIFICIAL INTELLIGENCE LIVE! PANEL DISCUSSION: Keeping Pace with AI and Machine Learning While Maintaining Your Day Job&lt;br&gt;Andrew Brust (moderator); Thomas LaRock, Jen Stirrup, Jen Underwood, &amp; Stacia Varga</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td>SQH07 SQL Server Design Features Contentious Issues&lt;br&gt;- Karen Lopez</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td>SQH08 Virtual SQL Servers, Actual Performance&lt;br&gt;- David Klee</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>SQH10 SQL Server Audit&lt;br&gt;- Thomas LaRock</td>
</tr>
<tr>
<td>3:45 PM</td>
<td>4:00 PM</td>
<td>SQH11 Secrets of SQL Server - Database Worst Practices&lt;br&gt;- Pinal Dave</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>SQH12 Real-World PowerShell for the DBA&lt;br&gt;- Amy Herold</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event&lt;br&gt;Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day, Peter De Tender, Brent Edwards, Kevin Ford, Grant Fritchey, Esteban Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas LaRock, Vishwas Lele, Rockford Lhotka, Karen Lopez, Matthew McDermott, Brian Randell, Paul Schaefflein, Jen Underwood, Rob Windsor</td>
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### SQL Server Live! Post-Conference Workshops: Friday, December 7, 2018

<table>
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<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Workshop Title</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>SQF01 Workshop: Migrating Data and Databases to Microsoft Azure&lt;br&gt;- Karen Lopez &amp; Thomas LaRock</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>SQF02 Workshop: Data Due Diligence – Developing a Strategy for BI, Analytics, and Beyond – Stacia Varga</td>
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</tbody>
</table>

Sessions and speakers subject to change.

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**THE QUALITY OF THE PRESENTERS WAS EXCEPTIONAL. I LOVE THE INTERACTION FEED OF PRESENTERS AND THE NON-BIAS VENDOR APPROACH. COMING FROM OUTSIDE THE USA THIS IS VERY IMPORTANT TO FACE WITH AN ARRAY OF EXPERTS WHO ARE DIVERSE GLOBALLY AND NON-BIASED.**

- Andre Griffith, JLT Insurance Management- Howard Holton, Precision Discovery
SQL Server Live! Session Descriptions by Track

**FULL-DAY HANDS-ON LABS**

Remember to bring your laptops!

**SQS01 Full Day Hands-On Lab: Developer Dive into SQL Server**

*Intermediate*

**LEONARD LOBEL**

Sunday, December 2, 9:00am – 6:00pm

Roll up your sleeves, and get ready to spend a full day learning great new features for developers in SQL Server 2016. You’ll start with a vanilla database, and then adorn it – step by step – with some of the most compelling new SQL Server 2016 features, including dynamic database masking (DDM), row level security (RLS), and Always Encrypted. Then you’ll “stretch” the database, which transparently relocates select tables to the cloud in Azure SQL Database, and utilize temporal tables, which enables “time-travel” queries. You’ll also exploit the new JSON capabilities to consume and produce JSON in the database, temporal tables, and geospatial data types. Attendance is limited.

**You will learn:**
- New SQL Server 2016 security features such as dynamic data masking, row level security, and always encrypted
- Other new SQL Server 2016 features, such as stretch database, temporal tables, and JSON
- Beyond relational features, such as FILESTREAM, Table, and geospatial data types

Attendance is limited.

**Attendee Requirements:**
You must provide your own laptop computer for this hands-on lab.

You will need a computer that supports Wi-Fi and that can connect to a Microsoft Azure hosted virtual machine via Remote Desktop Protocol (RDP). If you’re running Windows 8.1 or Windows 10, you’re ready to go! For the stretch database demos only, you’ll also need a Microsoft Azure subscription. No worries if you don’t have one though, you’ll be able to follow along with the rest of the workshop without it.

If you’re running Windows 7, you’ll want to make sure you’ve installed the latest Remote Desktop client. You can get it at https://support.microsoft.com/en-us/kb/2923545.

You can also use a Mac running OS/X 10.7 (Lion) or later with an Intel 64-bit processor. You’ll want to install the latest Microsoft Remote Desktop client from the Mac App Store. You can find it via https://itunes.apple.com/us/app/microsoft-remote-desktop/id715768417?mt=12.

**WORKSHOPS**

**SQM01 Workshop: Planning SQL Server Solutions in a Physical and Cloudy World**

*Intermediate / Advanced*

**ALLAN HIRT**

Monday, December 3, 8:30am – 5:30pm

We are no longer bound by implementations of SQL Server on physical hardware. Instances can be deployed on virtualized servers either on premises or in the public cloud. Databases can be hosted in those instances regardless of where those instances are located – or with no instance; just a database hosted in the public cloud.

No matter where you deploy, your SQL Server usage has to be up when you need it, secure, and perform well.

This full day session will cover how to approach solutions for SQL Server in a world where you have physical, virtualized, and/or public cloud-based deployments. The high-level agenda includes:

- Understanding the real differences between physical, virtualized, and public-cloud deployments despite them all having the same core components such as CPU, networking, and disk
- Understanding the difference between local availability and disaster recovery, and how virtualization and the public cloud changes the landscape
- Understanding how the choice of your operating system (Linux or Windows Server) will influence the final architecture of SQL Server
- Understanding the considerations for hybrid solutions that span on premises (physical and/or virtual) and the public cloud or multiple public clouds
- Learning about availability features at both the platform layer as well as in SQL Server, including newer features such as Storage Spaces Direct and Distributed Availability Groups
- Learning real world tips for successfully deploying solutions that meet your requirements

No matter what your role is, if you are responsible for SQL Server, don’t miss this all day session to modernize your skills and bridge what you know today with what you’ll need to do tomorrow.

**SQM02 Workshop: How Data Science Makes Your Data Warehouse Relevant**

*Intermediate / Advanced*

**BRADLEY BALL, JOSH LUEDEMAN & JORGE SEGARRA**

Monday, December 3, 8:30am – 5:30pm

When new things come along you don’t want to abandon what works. You need to learn, adapt and integrate the new while maintaining the old. In this interactive full-day session we’ll work through three different scenarios. The first helps us answer the question: What is the best day of the week to see your favorite baseball team play if you want to see them win? The second is: Does the social media sentiment on Twitter indicate if a new movie will succeed or fail at the box office? The third is: How do I collect historical social media information for trend analysis? We’ll answer one question using entirely on-premises solutions: SQL Server 2017, in-database R, Polybase, Hadoop Storage and Power BI Report Server. We’ll answer the other
questions using the cloud, Python, Logic Apps, SQL DB and Power BI. All of these techniques teach you how to find, consume, store and visualize data in a way that makes your data warehouse relevant again.

You will learn:
• How to use Polybase to interact with virtual tables that connect to non-Microsoft data sources using T-SQL and visualize that data using Power BI Report Server
• How to use Logic Apps to create a streaming data set to a PowerBI.com Dashboard and collect the data at the same time
• How to use Python to scrape historical social media data, how to process it in JSON, how to store the data and how to use Azure ML to perform sentiment scoring

SQF01 Workshop: Migrating Data and Databases to Microsoft Azure
Intermediate
KAREN LOPEZ & THOMAS LAROCK
Friday, December 7, 8:00am – 5:00pm
As the concept of Hybrid Datacenter becomes more mainstream data professionals will need to understand how to effectively manage and migrate data from Earthed to Cloud servers. In this workshop we will review how to decide if IaaS or PaaS is right for you, how to prepare your data for migration to Azure, and how to migrate your data in an efficient manner. Leave this workshop knowing how to best plan and execute your Azure data migration projects.

You will learn:
• Data migration
• Azure services
• Database projects

SQF02 Workshop: Data Due Diligence – Developing a Strategy for BI, Analytics, and Beyond
Introductory
STACIA VARGA
Friday, December 7, 8:00am – 5:00pm
For decades, traditional structured business intelligence solutions have enabled users to repeatedly ask and answer the questions that are well-known to the organization. In recent years, new technologies have emerged—predictive analytics, big data analytics, machine learning, among others. These technologies allow users to explore new sources of data in new ways and answer questions in ways that were never before possible. Have these new options for using data sounded the death knell for the Enterprise Data Warehouse? How can you build a BI strategy that preserves the best of your existing investments and lays the groundwork for a future state of your data platform?

You will learn:
• Understand how the BI space is evolving
• Understand how the current Microsoft data platform components fit together to support a technical infrastructure for BI, analytics, and data science
• Understand how to build a strategic road map to modernize your data platform

Business Intelligence
Organizations are increasingly turning to SQL Server and related technologies to make better business decisions. SQL Server Live! presents a full track to help you master the complex world of BI to help your organization get there. This track will cover Power BI, Analysis Services and SQL Data Warehouse. It all comes back to the relational engine, as well, including coverage of optimal configuration of SQL Server for Machine Learning services and new graph database capabilities in SQL Server 2017.

SQF03 Azure Cosmos DB Part I - Introduction to Cosmos DB
Introductory
LEONARD LOBEL
Tuesday, December 4, 9:15 – 10:30am
This session presents an overview of Azure Cosmos DB, a globally distributed, massively scalable, low-latency (single-digit millisecond), fully managed NoSQL database service that’s designed specifically for modern Web and mobile applications. Like other NoSQL platforms, Cosmos DB supports a schema-free data model, built-in partitioning for sustained heavy-write ingestion and replication for high availability. But only Cosmos DB offers turnkey global distribution, automatic indexing, and SLAs for guarantees on 99.99 percent availability, throughput, latency, and consistency.

We begin by explaining NoSQL databases in general, and how they compare with traditional relational database platforms. Then we tour the many features of Cosmos DB, including its multi-model capabilities that allow you to store and query schema-free JSON documents (using either SQL or MongoDB APIs), graphs (Gremlin API) and key/value entities (table API). You’ll learn about global
distribution, scale-out partitioning, tunable consistency, custom indexing and more. We’ll also discuss client development using the many available SDKs. Attend this session, and get up to speed on Cosmos DB today!

**You will learn:**
- To become familiar with NoSQL databases and Microsoft Azure Cosmos DB
- The differences between NoSQL and relational database platforms, and when to choose one or the other for your next application
- About the unique NoSQL features of Cosmos DB, including global distribution, server-side horizontal partitioning, multi-model support, rich query over schema-free data, client development, server-side programming, tunable consistency and automatic indexing

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### SQW03 Azure Cosmos DB Part II – Building Cosmos DB Applications

**Intermediate**

**LEONARD LOBEL**

**Wednesday, December 5, 8:00 – 9:15am**

In this intensive demo-packed session, you’ll learn how to write applications for Cosmos DB and see how to work with the various Cosmos DB APIs. These APIs support a variety of data models, including the SQL API (for JSON documents), Table API (for key-value entities), Gremlin API (for graphs) and Cassandra API (for columnar). Regardless of what you choose as a data model of choice, you’ll learn how to provision throughput and how to partition and globally distribute your data to deliver massive scale.

You’ll see how to migrate data from SQL Server to Cosmos DB and how to write queries using Cosmos DB SQL. Then you’ll write data access code that creates and queries databases, collections, and documents, manages custom indexing policies, and defines users and permissions for resource-level access. We’ll also create, deploy, and execute server-side stored procedures, triggers, and user-defined functions using the Cosmos DB server-side programming model. Attend this session, and prepare to build Cosmos DB applications today!

**You will learn:**
- How to write code to build Cosmos DB applications
- The various Cosmos DB APIs at work: SQL, Table, Gremlin, and Cassandra
- To use the Cosmos DB server-side programming model to run stored procedures, triggers and user-defined functions

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### SQW06 Power BI - What Have You Done for Me Lately?

**Introductory**

**ANDREW BRUST**

**Wednesday, December 5, 9:30 – 10:45am**

Power BI has been a runaway success for Microsoft in terms of adoption and mindshare. At this point, almost everyone is aware of it. Awareness is good, and you may already know Power BI creates great-looking visualizations, or that it runs on Windows, iOS, Android, and the Web. But do you know how to use it? And if you do, are you up-to-date with all the new features of this product that’s updated on a monthly basis?

Come to this session for a combination of a quick intro to Power BI (including its technology underpinnings, the costs around it and, of course, how to use it) and a check-in on several newer features, including Bookmarks, Add Column from Examples, Q&A and the latest custom visuals. We’ll even cover features released after this abstract is published.

**You will learn:**
- The design principals that incorporate the visual processing cues in the brain to provide the most understandable visualizations
- The best design principals sourced from leaders in the data visualization field that best apply to Power BI
- How to implement design-theory techniques from conceptual to improving Power BI reports and dashboards

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### SQW12 SQL Server Internals and Optimal Configuration for Machine Learning Services

**Introductory / Intermediate**

**GINGER GRANT**

**Wednesday, December 5, 4:00 – 5:15pm**

Microsoft has added the capability in SQL Server 2016 to run R and in SQL Server 2017 to run Python. How do these components interact with the rest of SQL Server? What can be done to ensure when running these
SQL Server Live! Session Descriptions by Track (continued)

SQH03  How Modern Is Your Data Warehouse?
Introductory / Intermediate
STACIA VARGA
Thursday, December 6, 8:00 – 9:15am
What's all the fuss about the modern data warehouse? Is a data warehouse even necessary anymore? After all, the Microsoft data platform provides a variety of technologies for data analysis that are easier to implement and manage. Or are they? In this session, we review the role of the traditional data warehouse, explore the newer technologies available in the Microsoft data platform, and discuss whether they replace or reinforce your data warehouse architecture.
You will learn:
• The differences and similarities between traditional and modern analytics
• How lambda and kappa architectures affect ETL

SQH06  Where Does R Fit into Your SQL Server Stack?
Introductory / Intermediate
STACIA VARGA
Thursday, December 6, 9:30 – 10:45am
Now that SQL Server includes support for R in the database, how does this change your BI implementation options? In this session, we start with a brief introduction to R and explain why it's increasingly popular, the typical development workflow, which tools you can use, common use cases and where it fits into the latest Microsoft stack at a high level. Then we'll review how to implement R Services so that you can use R with SQL Server data, including how to install R packages on SQL Server, how to use R functions and how to operationalize R in SQL Server. Then we explore options for using R to prepare data for analytics using SQL Server Integration Services (SSIS) or Power BI and how to report and visualize data using SQL Server Reporting Services (SSRS) or Power BI.
You will learn:
• How to configure SQL Server 2016 or 2017 for R
• How to explore and prepare data for analytics by using R in the Microsoft stack
• How to use SQL Server and R for predictive analytics

SQL Server Administration & Maintenance
Looking to brush up on SQL Server administration fundamentals? Are you a “reluctant DBA” charged with supporting SQL Server—and given no training? SQL Server Live! is here to help, with a complete selection of core maintenance topics: Always On Availability Groups, disaster recovery, encryption, data security and privacy, index maintenance, SQL Server upgrades, Azure SQL Database, PowerShell for SQL Server, and more.

SQT01  Availability Fundamentals for SQL Server
Introductory
ALLAN HIRT
Tuesday, December 4, 9:15 – 10:30am
How to make SQL Server instances and databases available often vexes many regardless of role and how long the person has been working with SQL Server. This session will demystify what it really takes to keep SQL Server up and running to give you a solid foundation of SQL Server availability. You will learn about the built-in features that SQL Server provides for availability such as Always On Availability Groups, Failover Cluster Instances, how applications need to be coded to account for availability, and much more. If you’re responsible for SQL Server, this session is one you cannot miss.
You will learn:
• The availability features of SQL Server
• About things like RTOs and RPOs
• How many factors—technical and non-technical—affect availability
SQL SERVER LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**SQT09 Introduction to SQL Server Essential Concepts**  
Introductory / Intermediate  
BRADLEY BALL  
Tuesday, December 4, 2:45 – 4:00pm  
When I first started learning about SQL Server, really deeply learning, there were a few “key” concepts that I would hear repeated often by top speakers and SQL MVPs: internals, recovery models and backups. They’re interconnected. As the learning continued, it was self-evident how understanding basic data internals with pages, extents, and allocation bitmaps or database recovery models, the transaction log and virtual log files (VLFs), or advanced backup options like stripping and piecemeal restores affected the use of SQL Server. They affected not just SQL Server but the way you make decisions in order to determine how best to use SQL Server to support your business. This session enables you to have that core set of understanding required for advanced SQL learning.  
You will learn:  
• How data is structured and stored in SQL Server  
• How recovery models, VLFs and backups impact your SQL Server decision making  
• High-level concepts to assist with future SQL Server learning

**SQW01 Top Tips for Deploying AGs and FCIs On-premises or in the Cloud**  
Intermediate / Advanced  
ALLAN HIRT  
Wednesday, December 5, 8:00 – 9:15am  
There are three main ways to deploy Always On Availability Groups (AGs) and Always On Failover Cluster Instances (FCIs)—physical hardware, virtualized, and Infrastructure as a Service in the public cloud. Those are just three of the factors that influence how AGs and FCIs are planned, deployed and administered. This session cuts right to the chase and will give you top tips, tricks, dos, and don’ts for successfully deploying and administering AGs and FCIs to be an availability hero back home.  
You will learn:  
• Best practices for planning, deploying and administering AGs  
• Best practices for planning, deploying and administering FCIs  
• How platform choice and OS choice can influence AGs and FCIs

**SQW02 Level Up Your SQL Server Cloud Skills**  
Introductory / Intermediate  
DAVID KLEE  
Wednesday, December 5, 8:00 – 9:15am  
Think infrastructure in the cloud is still just for sysadmins? Think again! As your organization moves into the cloud, infrastructure architecture skills are more important than ever for DBAs to master. Expert knowledge of cloud-related infrastructure will help you maintain performance and availability for databases in the cloud. For example, know what an IOP is? Should you use a Database as a Service or provision a cloud-based virtual machine? How many compute resources does your database consume during a given day? Can you secure it properly? Come learn many of the key cloud infrastructure points that you should master as the DBA role continues to evolve!  
You will learn:  
• To identify key concepts around database platform selection, such as Azure SQL DB versus Infrastructure as a Service, and make educated recommendations for the appropriate platform  
• To identify key performance metrics, such as storage performance, vCPU/DTU requirements and so on, that help with properly sizing the destination resources

**SQW08 Upgrading to SQL Server 2017**  
Intermediate  
THOMAS LAROCK  
Wednesday, December 5, 2:00 – 3:15pm  
Upgrading to the latest version of SQL Server is often seen as a comprehensive and difficult project. Management often fails to see the benefit for migrating to the latest version and your end users aren’t interested in all of the extra testing. As a DBA you need to come up with a plan that earns both management and end-user support.  
In this session, we will cover all the information you need to collect and consider before, during and after upgrading to SQL Server 2017. We’ll discuss licensing, upgrade approaches and how to build out your own upgrade checklist. If you feel stuck on an older version of SQL Server, attend this session to understand the features and benefits of SQL Server 2017 that will justify your upgrade project. Come and learn about the tools and methods that will make your upgrade project be successful.  
You will learn:  
• Pre-upgrade tasks  
• Upgrade tasks and options  
• Post-upgrade tasks

**SQH01 Cosmos DB for SQL Server Pros**  
Introductory / Intermediate  
DAVID KLEE  
Thursday, December 6, 8:00 – 9:15am  
Microsoft’s Cosmos DB is the first globally distributed database service, allowing low-latency scalability across multiple geographical regions. As a SQL Server pro, why does this matter? SQL Server is a great multi-function database that can handle many of your tasks with...
ease. However, it’s not the only tool in the toolbox, and Cosmos DB is a tremendous alternative for some use cases. This introductory session explores Cosmos DB and walks you through the similarities and differences in the two platforms. We’ll review the scalability and throughput settings, and help you ramp up your DBA and development skills on this compelling new platform.

You will learn:
- The core concepts of Cosmos DB and the reasons to consider it for data requirements
- Key concepts around data design, placement and document construction
- How to query for data and process client-side

SQH04  Hi Ho! Hi Ho! SQL Server on Linux, We Go!

Intermediate
JANIS GRIFFIN
Thursday, December 6, 9:30 – 10:45am
SQL Server has been running on Windows for years. Now Microsoft is making it available on Linux in order to provide a consistent database platform across Window and Linux servers, as well as on-premises and in the cloud. In this presentation, Janis Griffin, database performance evangelist at SolarWinds, will discuss the advantages of using SQL Server on Linux, comparing architecture, cost and performance. Several demonstrations on installing and maintaining SQL Server on Linux will be shown along with an introduction of several useful Linux commands.

You will learn:
- The advantages of using SQL Server on Linux, comparing architecture, cost and performance to Windows servers
- How to install, maintain and back up SQL Server on CentOS Linux systems
- Several useful Linux commands to monitor/manage SQL Server

SQH05  SQL Server 2016 Database Administration for the Non-DBA

Introductory
DENNY CHERRY
Thursday, December 6, 9:30 – 10:45am
Are you a developer or a sysadmin and you’ve just been handed a SQL Server database and you’ve got no idea what to do with it? This session will provide you with some of the answers you need. We’ll cover a variety of topics including backup and restore, recovery models, database maintenance, compression, data corruption, database compatibility levels and indexing.

While this session won’t teach you everything you need to know, it will give you some insights into the SQL Server database engine and give you the ability to better know what to look for.

You will learn:
- About backing up databases
- How to handle corruption
- About compatibility levels

SQH11  Secrets of SQL Server: Database Worst Practices

Intermediate
PINAL DAVE
Thursday, December 6, 2:30 – 3:45pm
“Oh! What did I do?” Chances are you’ve heard, or even uttered, this expression. This demo-oriented session will show many examples where database professionals were dumbfounded by their own mistakes, and could even bring back memories of your own early DBA days. The goal of this session is to expose the small details that can be dangerous to the production environment and SQL Server as a whole, as well as talk about worst practices and how to avoid them. In this session we’ll focus on some of the common errors and their resolution.

Developers will walk out with scripts and knowledge that can be applied to their servers immediately post-session.

You will learn:
- SQL Server 2017 features
- SQL Server performance tuning
- Internals of SQL Server

SQL Server Features & Components

With sessions on Adaptive Query Processing, Graph and Azure Data Catalog, as well as security sessions for SQL Server Audit and Threat Detection, we’ve got SQL Server features and components covered. Learn what’s new—along with the dos and don’ts—from our experienced experts.

SQT02  What’s New with Azure Data Factory

Introductory / Intermediate
JOSH LUEDEMAN
Tuesday, December 4, 9:15 – 10:30am
Azure Data Factory version 2 was launched into public beta at the end of 2017. It takes the best features of version 1 and adds new features like time execution triggers, Azure Data Lake activities and the ability to execute SSIS packages in Azure Data Factory. In this session we’ll do a walk-through of how the product has evolved, and help you understand the full feature set available in version 2. You’ll also understand how to lift and shift your SSIS packages to Azure Data Factory.

You will learn:
- The differences between version 1 and version 2 of Azure Data Factory
- How to create an Azure Data Factory to move data in the cloud
- How to deploy SSIS packages to run in the cloud
SQL Server Live! Session Descriptions by Track (continued)

**SQT04  Fast Focus: SQL Server Data Security and Privacy Features**
*Intermediate*
**THOMAS LAROCK**
Tuesday, December 4, 1:30 – 1:50pm
SQL Server has introduced a handful of new security features designed to help customers tackle their toughest data security and privacy issues. SQL Data Discovery & Classification, Vulnerability Assessment and Threat Detection are three new features available from Microsoft to help protect your data. Attend this session and see how these features will benefit your enterprise.

You will learn:
- SQL Data Discovery & Classification
- SQL Vulnerability Assessment
- SQL Threat Detection

**SQT06  Fast Focus: Graph DB Support in SQL Server**
*Introductory / Intermediate*
**KAREN LOPEZ**
Tuesday, December 4, 2:00 – 2:20pm
Graph databases solve complex relationship problems that relational databases struggle to support. Relational databases are optimized for capturing data and answering transactional data questions. Graph databases are highly optimized for answering questions about data relationships. Do you, as a data professional, understand which data stories need which type of technology?

- Master Data
- Networks & Infrastructure
- Forensics
- Customer Behaviors
- Trees & Hierarchies

You will learn:
- How to decide which data and which processes benefit from graph features

**SQW05  Redundant Devs & DBAs: Adaptive Query Processing and Automatic Tuning**
*Advanced*
**PINAL DAVE**
Wednesday, December 5, 9:30 – 10:45am
In this session, we’ll discuss two of the most talked about and discussed features of SQL Server 2017: Adaptive Query Processing and Automatic Tuning. DBAs around the world often worry that once Adaptive Query Processing and Automatic Tuning are fully integrated into the workflow and application development, their job will be redundant.

In this session, we’ll unfold all the mystery around Adaptive Query Processing and Automatic Tuning. We’ll see how three important resources—CPU, Memory and Disk—play around these features.

You will learn:
- SQL Server 2017 features
- Internals of SQL Server
- SQL Server Automatic Tuning feature

**SQT08  Data Protection and Privacy in the Database World**
*Intermediate*
**GRANT FRITCHEY**
Tuesday, December 4, 2:45 – 4:00pm
Ensuring the ongoing protection of personally identifiable information is mandatory in today’s business, helping you to guard against data breaches and comply with the GDPR and other compliance requirements. In a climate where cyberattacks are all too frequent and data is spread across a growing number of different environments, the challenge of protecting your data can seem daunting.

This session will address the implications of the GDPR on database management and demonstrate a privacy-first approach to controlling and protecting data as it changes and moves through your SQL Server estate. As well as offering guidance for assessing your data estate for GDPR readiness, this session will include some great tips for building data protection and privacy into your development processes, and dispel the myth that database DevOps and compliance can’t go hand-in-hand.

You will learn:
- About the application of the GDPR to your database and data management
- To understand methods that you can apply to your systems to help ensure data privacy
- How the GDPR applies to more than just EU companies

**SQW07  Leveraging Data Value with Azure Data Catalog**
*Intermediate*
**KAREN LOPEZ**
Wednesday, December 5, 2:00 – 3:15pm
Do you know all the data resources in your enterprise? Do you know what data they contain? How do end users find and use data?

Microsoft Azure Data Catalog is a fully managed cloud service that serves as a system of registration and discovery for enterprise data sources. In other words, Azure Data Catalog is all about helping people discover, understand and use data sources, helping organizations to get more value from their existing data.
SQL SERVER LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

Learn how to:
• Register data sources such as SQL Server, Azure SQL DB, Azure Data Lake Analytics and others
• Discover data sources, even multi-platform ones
• Annotate and define data
• See sample data
• Data profile your data
• Set up an enterprise data glossary
Plus, take away 10 tips to make your enterprise data more valuable for everyone.

SQH07 SQL Server Design Features Contentious Issues
Introductory / Intermediate
KAREN LOPEZ
Thursday, December 6, 1:00 – 2:15pm
This highly interactive presentation covers both traditional and new SQL Server features. Attendees evaluate the options and best practices of common and advanced design features, such as:
• IDENTITY, SEQUENCES, and GUIDs
• Row Level Security vs. VIEWS and other approaches
• Graph Features in SQL Server
• TDE, Always Encrypted, Homegrown Encryption
• NULL vs. NOT NULL
• HA, DR and Everything about Saving Your Job
...and more.
As a group, we vote and debate the costs, benefits, and risk for each topic. Bring your votes, your debates, and your opinions.
You will learn:
• How to evaluate cost, benefit and risks of SQL Server design features
• How new features compare to traditional features in SQL Server
• How the community views SQL Server design features

SQH10 SQL Server Audit
Intermediate
THOMAS LAROCK
Thursday, December 6, 2:30 – 3:45pm
Beginning with SQL Server 2016 SP1, all editions of SQL Server now support SQL Server Audit. SQL Server Audit is a feature that allows for administrators to capture and track activity at both the database and server-instance level. Built upon Extended Events, SQL Server Audit will log details of events each time the audit action happens. Attend this interactive session for an overview of SQL Server Audit, learn how to create and configure audits, and discuss the best ways to consume, centralize, and analyze audit logs.
You will learn:
• Data security
• Threat detection
• SQL Server Audit

SQT05 Fast Focus: Common T-SQL Coding Mistakes and How to Fix Them
Introductory / Intermediate
AMY HEROLD
Tuesday, December 4, 1:30 – 1:50pm
If you have ever gone back and looked at code you wrote in the dark ages of your career, you’re likely thinking how you would write it differently now that you have more experience. There are many different types of T-SQL coding mistakes - everyone makes them, but in this session we will talk about how we all can avoid them and write better T-SQL.
You will learn:
• 5 different things to be looking for in poor performing code
• Different methods for gathering performance metrics
• New SQL Server features for troubleshooting query performance

SQT10 Parameterization and Performance in SQL Server
Introductory / Intermediate
MINDY CURNUTT
Tuesday, December 4, 2:45 – 4:00pm
T-SQL programming makes wide use of parameterization in stored procedures, dynamic statements and ad hoc queries. Many developers aren’t aware of the significant influence they have on query performance. Incorrect use or lack of parameters is a common reason for query performance issues. Have you experienced a query that always ran fast, but suddenly (and for “no reason”) become slow? And with nothing changing? Yep! If this is a new topic to you, you’ll leave this session with takeaways galore.
You will learn:
• About how the plan cache deals with queries that are (and are not) parameterized
SQL Server Live! Session Descriptions by Track (continued)

**SQH09 Let’s Pretend This Never Happened: Common T-SQL Coding Mistakes and How to Fix Them**

*Introductory / Intermediate*

AMY HEROLD  
Thursday, December 6, 1:00 – 2:15pm

If I’ve learned anything from doing code reviews it is one thing: The majority of the time, there is a better way. The SQL Server optimizer can handle some things pretty well while near ignoring others, creating performance issues that can lead to nightmares. In this session we’ll explore problematic coding situations and methods of resolving them. We’ll also examine optimizer differences in older versus newer versions of SQL Server and solutions to performance issues encountered.

You will learn:

- How to use statistics to demonstrate the disparity in performance between two different queries that produce the same data
- Execution plans of good and poorly written queries, noting the differences and relating performance issues back to specific code segments
- The use of query store and demonstrate a performance gain with its use

**SQH12 Real-World PowerShell for the DBA**

*Introductory / Intermediate*

AMY HEROLD  
Thursday, December 6, 2:30 – 3:45pm

When used properly, PowerShell can have a positive effect on DBA-related tasks. Even when you’re in an environment with compliance rules that impact how you’re able to execute specific processes, PowerShell can still be an invaluable tool that can make automation possible when other processes fall victim to these rules. With all of the new SQL Server-related modules for PowerShell, more than ever it is the go-to tool for the DBA who’s in need of ways to eliminate manual tasks with something automated. In this session we’ll explore real-world methodologies and examples of how PowerShell can facilitate the automation of everyday DBA tasks while staying within established compliance boundaries.

You will learn:

- Installation of the DBATools and SQLServer modules, using cmdlets from these modules for common DBA tasks
- Real-world methods for deployments with PowerShell, including working around issues with PCI compliance
- Examples where PowerShell can be used to eliminate manual processes such as applying permissions following a database restore

**SQL Server Performance Tuning and Optimization**

Get the most from SQL Server—even if it’s hosting a third-party application database. Learn the insider tricks to performance tuning, covering the query optimizer, cardinality estimates, execution plans, virtualized SQL Server workloads, monitoring techniques and much more. SQL Server Live! helps you maximize your SQL Server investment.

**SQT07 Fast Focus: SQL Server Execution Plans**

GRANT FRITCHEY  
Tuesday, December 4, 2:00 – 2:20pm

Reading execution plans is a dense topic involving lots of information. This short session will give you the six things you should always look for first when you’re looking at an execution plan for the first time. This will not teach you everything you need to know about execution plans, but it will give you a few tools up front to demystify the whole complex issue.
SQL SERVER LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:
• What to look for first in execution plans
• Why you should look at this particular pieces of information
• Gain some level of understanding of what to do next

SQT11 Exploring Execution Plans
Intermediate
GRANT FRITCHEY
Tuesday, December 4, 4:15 – 5:30pm
Getting started reading execution plans is very straightforward. The real issue is understanding the plans as they grow in size and complexity. This session will show you how to explore the nooks and crannies of an execution plan in order to more easily find the necessary information needed to make what the plan is telling you crystal clear. The information presented here will better empower you to traverse the execution plans you’ll see on your own servers. That knowledge will make it possible to more efficiently and accurately tune and troubleshoot your queries.

You will learn:
• Where the behavioral details are found within execution plans
• The types of information found within execution plans
• About new methods of exploring execution plans

SQT12 Everything You Need to Know About SQL Server Indexes
Introductory / Intermediate
JANIS GRIFFIN
Tuesday, December 4, 4:15 – 5:30pm
You probably already know that indexes make your queries go faster. But do you know all the different types of indexes in SQL Server and when to use them? Also, with each new release of SQL Server, there are new features that can impact how indexes function and are maintained. Finally, knowing how the different types of indexes work can help you make better indexing choices when tuning your queries.

In this presentation, Janis Griffin, database performance evangelist at SolarWinds, will review current SQL Server index structures/options, discuss how they work, when they should be used and how to maintain them. Examples of all the index types such as hash, in-memory, columnstore, filtered and so on will be shown. This presentation is a must-see for DBAs, developers, application architects and anyone else who’s interesting in maintaining high-performance SQL Server applications.

You will learn:
• All the SQL Server index structures and how they work
• How to identify which index types to use in specific situations
• Specific index options such as data compression, new features and best practices on maintaining them

SQW04 What’s New in the 2017 Query Store
Introductory / Intermediate
JANIS GRIFFIN
Wednesday, December 5, 9:30 – 10:45am
The Query Store houses valuable information on performance of your queries, as well as gives you great insights into your query workload and plan changes. This presentation will take a look at what’s new in the 2017 Query Store, the new adaptive query processing features, and how to incorporate Query Store queries into the new SQL Operation Studio for monitoring slow running queries and analyzing waits. You’ll learn how to use the Query Store to quickly find plan changes, analyze performance issues and find the waits that caused them. Both DBAs and developers can increase their performance-tuning skills by attending this session.

You will learn:
• How to quickly find plan changes and analyze performance issues
• How to use the new wait classifications in order to get clues on how to tune your statements
• About the new adaptive query processing features and SQL Operation Studio

SQW10 The New Rules of SQL Server Monitoring
Intermediate
GRANT FRITCHEY
Wednesday, December 5, 4:00 – 5:15pm
If the regulatory requirements for data and data management in the GDPR weren’t enough incentive to put more monitoring and protection in place, the ever-expanding number of data breaches should be. You’re not only required to monitor your systems for GDPR compliance, you need to monitor your systems for all possible issues. This session will introduce methods and mechanisms that enable you to minimize the risk of losing availability. This knowledge will help you ensure that you can meet the new and challenging requirements of the GDPR and the modern security environment.

You will learn:
• About the monitoring requirements built into the GDPR
• How the GDPR applies to organizations around the world, and that other compliance regimes are coming
• How ensuring uptime and service availability is a fundamental aspect of privacy and protection

SQW11 Table Indexing
Intermediate
DENNY CHERRY
Wednesday, December 5, 4:00 – 5:15pm
In this session, we’ll look at the best and worst practices for indexing tables within your SQL Server 2000-2016 databases. We’ll also look into the new indexing features that are available in SQL Server 2012/2014/2016 (and SQL Server 2005/2008) and how the .NET developer can make the best use of them to get their code running its best.
You will learn:
• Clustered indexes
• NonClustered indexes
• Full Text indexes

**SQH02 Performance in 60 Seconds: SQL Tricks Everybody MUST Know**  
*Intermediate*  
PINAL DAVE  
Thursday, December 6, 8:00 – 9:15am  
Data and database is a critical aspect of application development for businesses. Developers often come across situations where they face a slow server response, even though their hardware specifications are above par. This session is for all the developers who want their server to perform at blazing-fast speed, but want to invest very little time to make it happen. We’ll go over various database tricks that require absolutely no time to master and require practically no SQL coding at all. After attending this session, developers will only need 60 seconds to improve the performance of their database server. We’ll have a quiz during the session to keep the conversation alive. Developers will walk out with scripts and knowledge that can be applied to their servers immediately after the session.  

You will learn:  
• Performance tuning  
• Troubleshooting performance  
• Understanding behind the scenes of performance tuning

**SQH08 Virtual SQL Servers, Actual Performance**  
*Intermediate / Advanced*  
DAVID KLEE  
Thursday, December 6, 1:00 – 2:15pm  
Virtualizing your business-critical SQL Servers shouldn’t imply that they’ll run slower than if they were physical, either on-premises or in the cloud. When properly architected and managed, virtual SQL Servers should be equally as fast as their physical counterparts, if not faster. However, if not properly constructed, silent and seemingly random performance killers can strike and significantly hurt your database performance.  
This session is packed with many tips and tricks gained from years of experience for getting the most performance from your virtual SQL Servers. The major roadblocks to performance will be discussed and the knowledge gained will help you work with your infrastructure engineers so you can optimize the system stack for performance. Tools, techniques, and processes will be demonstrated to help you measure and validate the system performance of the key components underneath your data.  

You will learn:  
• How to discuss performance optimization topics with sysadmins, perform a best-practices check of your virtualized infrastructure and demonstrate the performance improvements when the best practices are applied  
• How to perform a best practices review of your SQL Server to check for top performance—metrics and methods will be presented that allow DBAs to measure the performance improvements  
• How to construct a virtualized SQL Server template that contains all of the presented best practices in a ready-to-deploy format to ensure that all future SQL Server VM deployments are configured optimally

“TOPICS ARE GOOD. THE EVENTS ARE FUN. THE LOCATION IS GREAT.”  
- Joshua Cichoski, Quicken Loans, Inc.
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CEO and Founder, Blue Badge Insights
SQL Server Live! Conference Co-Chair

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Head Geek, SolarWinds
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SQL SERVER LIVE! CONFERENCE SPEAKERS

Bradley Ball
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Janis Griffin
Database Performance Evangelist, SolarWinds

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SR Consultant, Development Advisory Services for Azure, Microsoft

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Allan Hirt
Founder, SQLHA, LLC

Stacia Varga
Consultant, Educator, and Author

Mindy Curnutt
Mindy Curnutt & Associates Consulting

David Klee
Founder, Heraflux Technologies

Leonard Lobel
CTO, Sleek Technologies, Inc.

Pinal Dave
SQL Server Performance Tuning Expert

Thomas LaRock
Head Geek, SolarWinds
SQL Server Live! Conference Co-Chair

Karen Lopez
Data Evangelist, Space Enthusiast, & NASA Datanaut

Grant Fritchey
Product Evangelist, Redgate Software

Ginger Grant
Principal Data Geek, Desert Isle Group

For full speaker bios, go to live360events.com/orlando

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Where IT Training Meets the Sunshine
# AGENDA AT-A-GLANCE

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<th>Client and Endpoint Management</th>
<th>PowerShell and DevOps</th>
<th>Infrastructure</th>
<th>Soft Skills for IT Pros</th>
<th>Security</th>
<th>Cloud (Public/Hybrid/Private)</th>
</tr>
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## TechMentor Full Day Hands-On Labs: Sunday, December 2, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
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<th>SESSIONS</th>
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</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>9:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td><strong>TMS01</strong> Hands-On Lab: Advanced Troubleshooting for IT/Ops Pros - Bruce Mackenzie-Low</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>Pre-Conference Registration - Royal Pacific Resort Conference Center</td>
</tr>
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</table>

## TechMentor Pre-Conference Workshops: Monday, December 3, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
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<tbody>
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<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>5:30 PM</td>
<td><strong>TMM01</strong> Workshop: Mastering the Sysinternals Toolkit - Sami Laiho</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group</td>
</tr>
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</table>

## TechMentor Day 1: Tuesday, December 4, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td>TECHMENTOR KEYNOTE: OneDrive and M365 - Enabling Secure and Seamless Collaboration for a Untethered Workforce - Stephen Rose, Sr. Product Manager, OneDrive for Business, Microsoft &amp; Jason Moore, Head of OneDrive, Partner Group Program Manager, Microsoft</td>
</tr>
<tr>
<td>9:15 AM</td>
<td>10:30 AM</td>
<td><strong>TMT01</strong> Everything You’re Doing Wrong in PowerShell - Don Jones</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>11:00 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>12:45 PM</td>
<td>Lunch • Visit the EXPO</td>
</tr>
<tr>
<td>12:45 PM</td>
<td>1:30 PM</td>
<td>Dessert Break • Visit the EXPO</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>1:50 PM</td>
<td><strong>TMT04</strong> Fast Focus: Microsoft and Open Source - Jessica Deen</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td><strong>TMT06</strong> Fast Focus: Office 365 and Azure AD Security Quick Wins - Holly Lockhart &amp; Oana Enache</td>
</tr>
<tr>
<td>2:20 PM</td>
<td>2:45 PM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td><strong>TMT08</strong> How I Would Audit Your Windows Security - Sami Laiho</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td><strong>TMT09</strong> DevOps with Azure, Kubernetes, and Helm - Jessica Deen</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>6:00 PM</td>
<td><strong>TMT10</strong> Consolidating DataCenters with Windows Failover Clusters - Bruce Mackenzie-Low</td>
</tr>
</tbody>
</table>

Sessions and speakers subject to change.

Continued next page
### AGENDA AT-A-GLANCE (continued)

<table>
<thead>
<tr>
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</table>

#### TechMentor Day 1: Tuesday, December 4, 2018 (Continued)

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Session</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td>TMT11</td>
<td>Securing Access to Office 365, SaaS and On-Premises Applications - Oana Enache &amp; Holly Lockhart</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Exhibitor Reception</td>
<td>Pacifica 7</td>
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</tbody>
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#### TechMentor Day 2: Wednesday, December 5, 2018

<table>
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<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Session</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration</td>
<td>Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>TMW01</td>
<td>DevOps Making Snowflakes into Cattle - Don Jones</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>10:45 AM</td>
<td>TMW04</td>
<td>PowerShell: Under the Hood - Don Jones</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Networking Break</td>
<td>Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>LIVE! 360 KEYNOTE: Enterprise Transformation (And You Can Too)</td>
<td>Donovan Brown, Principal DevOps Manager, Cloud Developer Advocacy Team, Microsoft</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Birds-of-a-Feather Lunch</td>
<td></td>
</tr>
<tr>
<td>1:30 PM</td>
<td>2:00 PM</td>
<td>Dessert Break</td>
<td>Visit the EXPO</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td>TMW07</td>
<td>Conceptualizing Desired State Configuration Using Your Own Scripts - Will Anderson</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>4:00 PM</td>
<td>Networking Break</td>
<td>Visit the EXPO • Expo Raffle @ 3:30 p.m. - Pacifica 7</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>TMW10</td>
<td>Everything You Need to Know About Microsoft 365 - Harjit Dhaliwal &amp; Nick Brattali</td>
</tr>
<tr>
<td>5:15 PM</td>
<td>6:00 PM</td>
<td>TMW11</td>
<td>The Zen of PowerShell Scripting - Jeffery Hicks</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Live! 360 Dessert Luau</td>
<td>Wantilan Pavilion</td>
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#### TechMentor Day 3: Thursday, December 6, 2018

<table>
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<td>Registration</td>
<td>Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>TMH01</td>
<td>The PowerShell Core Tutorial - Don Jones</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>10:45 AM</td>
<td>TMH04</td>
<td>Start Using JEA Today to Stop Overprivileged User Accounts - John O’Neill Sr.</td>
</tr>
<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Networking Break</td>
<td>Visit the EXPO</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td>TMH02</td>
<td>What’s New in Windows Server 2019 - Dave Kawula</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>TMH03</td>
<td>Securing Service Accounts the Modern Way - John O’Neill Sr.</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>2:00 PM</td>
<td>TMH05</td>
<td>Deploying Application Whitelisting on Windows Pro or Enterprise - Sami Leithe</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>3:00 PM</td>
<td>TMH06</td>
<td>Automated Troubleshooting Techniques in Enterprise Domains - Petri Paavola</td>
</tr>
</tbody>
</table>

Sessions and speakers subject to change.

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## AGENDA AT-A-GLANCE (continued)

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</thead>
<tbody>
<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>TECHMENTOR PANEL DISCUSSION: The Future of IT</td>
<td>Sami Laiho and Dave Kawula (Moderators); Will Anderson, Johan Arwidmark, Ami Casto, and Don Jones</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
<td></td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td>TMH07 Azure Security Unchained</td>
<td>Peter De Tender</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td>TMH08 The Case of the Shrinking Data - Deduplication in Windows Server 2019 on ReFS</td>
<td>Dave Kawula</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td>TMH09 Top 10 Configuration Manager Current Branch Mistakes (and How to Avoid Them)</td>
<td>Panu Saukko</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>TMH10 Azure Stack, What You Need to Know</td>
<td>Peter De Tender</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>TMH11 The Weakest Link of Office 365 Security</td>
<td>Nestori Syynimaa</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>TMH12 How to Become a Community Rockstar - Learn How to Showcase Your Skills</td>
<td>Cristal Kawula</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event</td>
<td>Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day, Peter De Tender, Brent Edwards, Kevin Ford, Grant Fritchey, Esteban Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas LaRock, Vishwas Laxle, Rockford Lhotka, Karen Lopez, Matthew McDermott, Brian Randell, Paul Schaeflein, Jen Underwood, Rob Windsor</td>
</tr>
</tbody>
</table>

### TechMentor Day 3: Thursday, December 6, 2018 (Continued)

### TechMentor Post-Conference Workshops: Friday, December 7, 2018

<table>
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<tr>
<th>START TIME</th>
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<tr>
<td>7:30 AM</td>
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<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>TMF01 Workshop: Notes from the Field on Storage Spaces Direct &amp; Managing Windows Server with Project Honolulu (Windows Admin Center)</td>
<td>Dave Kawula</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>TMF02 Workshop: Hacking and Hardening Office 365 and Azure AD</td>
<td>Nestori Syynimaa</td>
</tr>
</tbody>
</table>

Sessions and speakers subject to change.

"THE THINGS I LIKED THE MOST WERE THE ABILITY TO TAILOR SESSIONS TO DIFFERENT TRACKS, THE ACCESSIBILITY OF SPEAKERS, THE LOCATION AND THE VENUE."

- Glenn Heydolhp, Raydon
TECHMENTOR SESSION DESCRIPTIONS BY TRACK

**FULL-DAY HANDS-ON LABS**
Remember to bring your laptops!

**TMS01 Hands-On Lab: Advanced Troubleshooting for IT/Ops Pros**
*Intermediate / Advanced*

**BRUCE MACKENZIE-LOW**

Sunday, December 2, 9:00am – 6:00pm

Buckle your seat belts and prepare yourself for an inspiring full day hands-on adventure of advanced Windows troubleshooting with Industry expert Bruce Mackenzie-Low as your guide. Slay the toughest Windows outages with confidence as you learn how to analyze the Blue-Screen-Of-Death, server hangs, and performance issues. Fill your toolbox as you leverage free, state-of-the-art tools from Microsoft, including the Windows Debugger and the Windows Performance Toolkit for executing your in-depth analysis.

Practice installing and learning about the tools on your own laptop so you’re ready to use them when you return to the office. Your laptop should be running Windows 7 or later with at least 2GB of free disk space to install the tools and stage lab materials.

**You will learn:**

- Best practices for analyzing Windows crashes, hangs and performance issues
- Gain hands-on experience with proven techniques for troubleshooting complex outages
- Install the latest free tools from Microsoft ready to take back to your office

**TMS02 Hands-On Lab: Windows PowerShell Jump Start HOL**
*Introductory*

**JEFFERY HICKS**

Sunday, December 2, 9:00am – 6:00pm

So you’ve put off learning this PowerShell thing for as long as you could. Time to bite the bullet and pull the trigger! Ok, enough with the trite metaphors. How about personal, hands-on learning from veteran PowerShell teacher and expert Jeff Hicks. Bring your own laptop running Windows 10 (we’ll assume you have admin rights) and Jeff will get you up and running on Windows PowerShell 5.1. By the end of the day you will know how to discover what you can do with PowerShell, how to effectively do it, and even how to automate it. There will be plenty of hands-on opportunities for IT Pros with little to no PowerShell experience.

**You will learn:**

- How to discover what you can do in Windows PowerShell and how
- Understand the PowerShell paradigm and see how it simplifies even the most complex of tasks
- See how easy it is to automate with PowerShell and “manage at scale”

**WORKSHOPS**

**TMM01 Workshop: Mastering the Sysinternals Toolkit**

**SAMÍ LAIHO**

Monday, December 3, 8:30am – 5:30pm

Details Coming Soon!

**TMM02 Workshop: How to Successfully Manage a Fabric Using System Center 2016/2019**
*Intermediate*

**MIKAEL NYSTROM**

Monday, December 3, 8:30am - 5:30pm

In this workshop, you will learn how to use the entire system center suite to build and manage a full Fabric, with Storage, Compute and Network, using one suite of tools, and some PowerShell. You will learn how to configure networking, configure bare metal deployment of physical hosts as configure hyper-converged infrastructure, using system center virtual machine manager with some UI and some PowerShell. You will learn how to use Operations Manager for monitoring the fabric, use Orchestrator for automation, Azure pack for Self Service, DPM for data protection. Everything is real-life experience and the day is very demo intense.

**TMF01 Workshop: Notes from the Field on Storage Spaces Direct & Managing Windows Server with Project Honolulu (Windows Admin Center)**
*Intermediate*

**DAVE KAWULA**

Friday, December 7, 8:00am – 5:00pm

Part 1: (8:00am – 12:00pm)

This workshop looks at the field notes from production deployments of Storage Spaces Direct over the past few years. Various scenarios are covered, from two-node SMB to enterprise configurations, and everything in between. We will take a look at some lessons learned for hardware configurations, firmware updates, and core network configurations. We’ll also review some upgrade paths to the latest release of Windows Server 2019. This
workshop is action packed and you should definitely come ready to learn.

You will learn:
• New features in Storage Spaces Direct
• About all the great resources for the Storage Spaces Direct Community
• All about Dave's build scripts and guidance on building production ready Hyper-Converged Infrastructure

Part 2: (1:00pm – 5:00pm)
Microsoft released its latest flagship operating system late last fall (Windows Server 1709) without a GUI (Server Core) only. Administrators were left wondering if the completely removed GUI would be permanently removed from Windows. Well, only time will tell for that one. What is clear is that remote server management is a must skill for all Server Administrators, either with PowerShell or with remoting tools. Microsoft realized that there is a big skill gap created by Project Honolulu (Windows Admin Center), an HTML based replacement for Server Manager that can fully manage remote Windows Infrastructure and more. This workshop will give you the key skills necessary to management your infrastructure with Project Honolulu (Windows Admin Center).

You will learn:
• How to manage Windows Server Core and Nano
• About Microsoft’s new tools for Managing Windows Server
• How to become Proficient with Remote Server Management Tasks

Client and Endpoint Management
There’s always been excitement in the server space. But you still have to support, upgrade, migrate, and troubleshoot all of those client computers, right? We’ve got you covered with a brand-new lineup of client-centric sessions from some of your favorite speakers.

You will learn:
• What Windows AutoPilot is and why you should evaluate it
• What Windows AutoPilot Reset is
• How to setup, automate, and troubleshoot Windows AutoPilot
• About Windows AutoPilot Resources

TMW03 Windows 10 Servicing with Traditional and Modern Options
Intermediate / Advanced
JOHAN ARWIDMARK & AMI CASTO
Wednesday, December 5, 8:00 – 9:15am
Join Johan Arwidmark and Ami Casto in a technical session covering options for getting current and staying current with Windows 10 using various Microsoft technologies.

This session will cover:
• Patch setup (quality updates)
• Patch deployment (quality updates)
• Upgrade (feature updates) setup
• Upgrade best practices

You will learn:
• What Microsoft technologies are available to service Windows 10
• How to setup servicing options
• Best practices around patching and feature upgrades

TMW06 How to Setup and Maintain Config Manager in your Environment
Intermediate / Advanced
JOHAN ARWIDMARK & AMI CASTO
Wednesday, December 5, 9:30 – 10:45am
Join Johan Arwidmark and Ami Casto on a session covering what you need to know about ConfigMgr Current Branch in your IT Organization.
This session will cover:
• How to setup ConfigMgr
• The servicing timeline for ConfigMgr
• How to test features as they come out
• How to get feedback to the product team

You will learn:
• How to setup ConfigMgr
• The servicing timeline for ConfigMgr
• How to test features as they come out

---

**TMW09 How to Use PowerShell to Become a Windows Management SuperHero**

*Intermediate / Advanced*

PETRI PAAVOLA

Wednesday, December 5, 2:00 – 3:15pm

In this heavily demo based session, Petri will show you how PowerShell is used in real life Windows management scenarios. PowerShell can be as simple as batch script, or it can be fully blown C# coding, or anything in-between.

Learn a few tips and tricks that will help you on your journey to become a Windows-management PowerShell Superhero. In this session Petri shows you how many Windows management tasks are done in real life with PowerShell.

Automation and scripts are only one part of PowerShell. With only 3 letters we can have the GUI made automatically for us, which helps to represent data or do even simple working GUI with commands.

You will learn:
• Important basics and tips and tricks in real life Windows management with Powershell
• Why you need to learn PowerShell to be the Windows Management Hero in your organization
• How to make simple GUIs easily with PowerShell build-in cmdlets

---

**TMW12 Co-Management Status Quo**

*Intermediate*

PANU SAUKKO

Wednesday, December 5, 4:00 – 5:15pm

Co-management is one of the new Microsoft key investment areas. With co-management you can move from traditional on-prem ConfigMgr/AD based infrastructure to a new modern Intune/AAD based environment.

This session answers the important questions about co-management:
• What does it really do?
• What are the requirements?
• What benefits does it provide to customers?

You will learn:
• About the real co-management pre-requisites
• How to implement co-management
• The benefits of co-management

---

**TMH06 Automated Troubleshooting Techniques in Enterprise Domains**

*Intermediate / Advanced*

PETRI PAAVOLA

Thursday, December 6, 9:30 – 10:45am

Workstation management solutions (for example SCCM) have capabilities to help in automated troubleshooting. Information may already exist in gathered client inventory data, we just have to find it using custom reports. Or we can use these management tools to automate troubleshooting information gathering from all domain clients using techniques we have already learned.

This session covers ways to gather domain wide troubleshooting information automatically, using for example SCCM or Microsoft cloud services.
TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)

**PowerShell and DevOps**
TechMentor brings the PowerShell, the automation, and the DSC. It’s all part of the new DevOps approach. Sessions in this track will teach you the tools and tech you need to make it happen inside your organization. You can’t excel in this business without learning PowerShell!

**TMT01  Everything You’re Doing Wrong in PowerShell**  
*Intermediate / Advanced*  
**DON JONES**  
**Tuesday, December 4, 9:15 – 10:30am**  
It’s time to fix those bad habits, break those bad approaches, and aim for the path of PowerShell Righteousness! Join PowerShell MVP Don Jones for a concise look at the most common missteps, mistakes, and mis-cues in the PowerShell world, and learn how to take your scripts, your commands, and your resources to a better, more harmonious, and more productive place.

You will learn:  
• Correct your approach for advance functions  
• Build better tools and controllers  
• Implement better practices and patterns

**TMT12  Using Desired State Configuration in Azure**  
*Intermediate*  
**WILL ANDERSON**  
**Tuesday, December 4, 4:15 – 5:30pm**  
Cloud and Datacenter Management MVP Will Anderson takes you through the use of Azure’s Desired State Configuration to deliver VM deployment solutions on-prem and in the cloud that conform to your organizations’ requirements. Learn how to create, manage, and deploy configurations in your hybrid environment securely and easily while getting rich reporting to meet your auditing needs.

You will learn:  
• How to manage your infrastructure configurations for on-prem and cloud-based use  
• Understand the layers of security that Azure Desired State Configuration can provide over traditional pull server  
• How to integrate your configurations with automation via PowerShell and Azure Templates

**TMW01  DevOps Making Snowflakes into Cattle**  
*Intermediate / Advanced*  
**DON JONES**  
**Wednesday, December 5, 8:00 – 9:15am**  
DevOps works best when your servers are no longer special snowflakes requiring individual attention. Instead, you need to learn to treat machines like cows - no names, no distinguishing characteristics, and so on. But how? You’ve still got to manage DNS, IP addresses, and all that other unique data, right? Join MVP Don Jones for a look at how the big guys like Azure and AWS cattle-theyir servers, speed up management, and make “failing with style” a daily part of their lives.

You will learn:  
• To make servers more generic and less individual  
• Discover how cloud providers treat servers like cattle  
• Find the connection between DevOps and automation

**TMW04  PowerShell: Under the Hood**  
*Advanced*  
**DON JONES**  
**Wednesday, December 5, 9:30 – 10:45am**  
Do you know how PowerShell *really works*? Betcha don’t, but MVP Don Jones has been working with it since 2006 and is here to lay it all bare. Remoting, the Formatting Subsystem, the Pipeline, .NET Interop, and more are all revealed. And you’ll do more than just gaze at diagrams in slides - you’ll learn how to go home and see these insides for yourself, developing invaluable troubleshooting skills that will serve you for the rest of your career.

You will learn:  
• How Remoting (even over SSH) really works  
• The gritty details of the pipeline, formatting, and more  
• Develop powerful troubleshooting skills for PowerShell

**TMW07  Conceptualizing Desired State Configuration Using Your Own Scripts**  
*Intermediate*  
**WILL ANDERSON**  
**Wednesday, December 5, 2:00 – 3:15pm**  
Still trying to get your head around Desired State Configuration? Start with what you know! Cloud and Datacenter Management MVP Will Anderson takes you through learning to build DSC configurations using scripts that you’ve already created.
In this mega-session, you’ll learn:
• Why DSC is important when it comes to auditing, compliance, and enforcement
• To familiarize yourself with the DSC declarative language format
• How to create, modify, test, and deploy a DSC configuration
• How to find and import community sourced resources

You will learn:
• PowerShell scripting best practices
• How to leverage PowerShell editors
• How to design effective PowerShell functions

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**TMW08 Securely Scripting PowerShell**  
*Intermediate*  
**JEFFERY HICKS**  
*Wednesday, December 5, 2:00 – 3:15pm*

One of PowerShell’s great strengths is that you can accomplish a lot with very little code. However, this also means that if you aren’t careful you can quickly execute a lot of bad or unintentional code. One solution is to script securely. This session will examine a number of techniques and concepts for creating and running secure PowerShell code and scripts.

You will learn:
• Understand PowerShell’s security model
• Scripting security best practices
• How to leverage proxy functions

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**TMW11 The Zen of PowerShell Scripting**  
*Introductory*  
**JEFFERY HICKS**  
*Wednesday, December 5, 4:00 – 5:15pm*

We all know about the recommended best practices of PowerShell scripting, but what comes after that? What does it mean to write “elegant” code? Writing an effective and manageable piece of PowerShell code is as much an art as it is a science. In this session, long time scripter (and master of fine arts) Jeff Hicks will share his thoughts and patterns on writing beautiful PowerShell code that is not only a joy to read, but often is better performing and easier to debug or troubleshoot.

You will learn:
• To create Reference Images
• Automate the process
• Do something more important than watching paint dry

---

**TMH01 The PowerShell Core Tutorial**  
*Introductory / Intermediate*  
**DON JONES**  
*Thursday, December 6, 8:00 – 9:15am*

What IS PowerShell Core? What’s it got to do with Windows PowerShell? Are your skills obsolete - or are they just lined up for a bigger and braver new world? Join PowerShell MVP Don Jones for a deep look at what PowerShell Core is, why it exists, and how it differs from the PowerShell you know and love. Transfer your Windows skills to this new cross-platform shell, and learn what sets it apart from traditional shells like Cmd, Bash, and more.

You will learn:
• Understand how PowerShell Core fits into your world
• What Windows PowerShell skills transfer to Core
• Start building better cross-platform tools and scripts

---

**TMT03 Image Factory: Automation Grand Deluxe**  
*Advanced*  
**MIKAEL NYSTROM**  
*Tuesday, December 4, 9:15 – 10:30am*

The need for a decent reference image is still valid, and with a faster cadence, you now need to have multiple versions of them. This applies to both Windows Server and Windows 10. Creating them is not that hard, but it is defined as extremely boring - It does not need to be. In this session you will learn how to use an Image Factory that does it all for you, just drop the ISO’s in a folder and it will build your reference images, and test them, and validate them.

You will learn:
• Understand how PowerShell Core fits into your world
• What Windows PowerShell skills transfer to Core
• Start building better cross-platform tools and scripts

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**TMT10 Consolidating DataCenters with Windows Failover Clusters**  
*Introductory / Intermediate*  
**BRUCE MACKENZIE-LOW**  
*Tuesday, December 4, 2:45 – 4:00pm*

Today’s IT infrastructures demand the highest levels of availability under the most diverse workloads. Learn how to leverage Windows Failover Clusters to consolidate multiple servers and roles into a highly available configuration, while maintaining the flexibility to handle varying workload demands. Learn about the best practices for optimizing File and Hyper-V servers in a demand-driven clustered environment. Avoid the common pitfalls that can lead to service downtime and leave this session with the confidence you’ll need to deploy Windows Failover Clusters in your datacenters.
TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)

**TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)**

You will learn:
- About Windows Failover Clusters and how to consolidate your datacenters
- Leverage the best practices for installing servers in a clustered environment
- Explore troubleshooting tools and techniques for maintaining Windows Failover Clusters

**TMT13 Exploring Storage Replica in Windows Server 2019**
*Advanced*
MIKAEL NYSTROM
Tuesday, December 4, 4:15 – 5:30pm
Storage is always important, important enough in many cases to be replicated between SANs; and up until now that has been expensive and complicated, but that changed in Windows Server 2016! In Windows Server 2019 it has become even better. Join us in this demo intense session where you will learn all the different aspects of Storage Replication in Windows Server 2019.

You will learn:
- About Storage Replica
- How to use Storage Replica
- Understand the benefits and limitations

**TMT02 What’s New in Windows Server 2019**
*Intermediate*
DAVE KAWULA
Thursday, December 6, 8:00 – 9:15am
In this session, you will learn all about the latest features of Microsoft’s Flagship Server operating system. There have been many enhancements including Microsoft bringing back Storage Spaces Direct, improvements to Failover Clustering, and new features for Containers. This session will be jam packed with demos and great resources.

You will learn:
- What’s new about Windows Server
- New features in Storage Spaces Direct
- New features in Failover Clustering

**TMT04 Fast Focus: Microsoft and Open Source**
JESSICA DEEN
Tuesday, December 4, 1:30 – 1:50pm
Details Coming soon.

**TMT06 Fast Focus: Office 365 and Azure AD Security Quick Wins**
*Intermediate*
HOLLY LOCKHART & OANA ENACHE
Tuesday, December 4, 2:00 – 2:20pm
As you begin the process of moving to Office 365 and Azure Active Directory, you might not have an immediate plan on how to secure your cloud environment. This 20-minute session covers an overview of the top 5 things that are easy to deploy but have a great impact on your Azure Active Directory security posture.

**TMH08 The Case of the Shrinking Data - Deduplication in Windows Server 2019 on ReFS**
*Intermediate*
DAVE KAWULA
Thursday, December 6, 1:00 – 2:15pm
One of the most requested features for Windows Server 2016 was ReFS with De-Duplication. This feature was released over a year ago, but unfortunately it was only in the Semi-Annual Release which did not include support for Storage Spaces Direct. So, the IT Community has waited patiently and the time has finally come with Windows Server 2019 LTSC. This release has added full support for ReFS De-Duplication into Windows Server 2019. What does this mean for you?? How about 80+ % space savings on your VM’s, Backups, ISO repositories, all running on Cluster Shared Volumes with Storage Spaces Direct.

In this Session, Dave will show you how to Setup, Configure and test De-Duplication with ReFS based on his years of knowledge working with Microsoft Storage.

**TMH02 The Case of the Shrinking Data - Deduplication in Windows Server 2019 on ReFS**
*Intermediate*
DAVE KAWULA
Thursday, December 6, 1:00 – 2:15pm
One of the most requested features for Windows Server 2016 was ReFS with De-Duplication. This feature was released over a year ago, but unfortunately it was only in the Semi-Annual Release which did not include support for Storage Spaces Direct. So, the IT Community has waited patiently and the time has finally come with Windows Server 2019 LTSC. This release has added full support for ReFS De-Duplication into Windows Server 2019. What does this mean for you?? How about 80+ % space savings on your VM’s, Backups, ISO repositories, all running on Cluster Shared Volumes with Storage Spaces Direct.

In this Session, Dave will show you how to Setup, Configure and test De-Duplication with ReFS based on his years of knowledge working with Microsoft Storage.

**TMW05 Techie Got Talent - Run Your Own Podcast / Webcast**
*Introductory / Intermediate*
HARJIT DHALIWAL & NICK BRATTOLI
Wednesday, December 5, 9:30 – 10:45am
Are you bursting with knowledge that you can’t wait to share with the world? Maybe it’s time you got your own podcast or webcast. If you’re not sure where to start, I have good news for you!

In this session, veteran hosts Nick Brattoli and Harjit Dhaliwal discuss how to plan and build your show to reach the audience who will most appreciate you.

You will learn:
- Considerations when planning your show
- Suggested Equipment and Software
- Keeping content fresh and growing your audience

**Soft Skills for ITPros**
Being a successful IT Pro requires more than just technology skills. Boost your career with a selection of sessions on the lighter side of technology from the industry’s most experienced speakers. This track teaches you how to be successful in your career and how to communicate your knowledge to others.
TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)

**TMH12** How to Become a Community Rockstar - Learn How to Showcase Your Skills  
*Introductory*  
CRISTAL KAWULA  
Thursday, December 6, 2:30 – 3:45pm  
Have you struggled to get up in front of people and talk about the amazing things you know and love about IT? Do you find it difficult to come up with ideas for speaking sessions and topics? During this session, Cristal will show you how the process works and how to up your speaking game. Also in this session, Cristal will show you how to quickly get your information out there in various channels including: Blogs, Twitter, Facebook, and YouTube. At the end of this session, the only question you will be left asking yourself is where is the next conference and how can I submit my sessions and become a part of this amazing IT Community.

**TMT02** Shields Up! Managing the Windows Firewall with Advanced Security  
*Intermediate*  
RICHARD HICKS  
Tuesday, December 4, 9:15 – 10:30am  
Without a doubt, the Windows Firewall with Advanced Security (WFAS) is the most powerful, and sadly the most often overlooked security feature of the Windows operating system. By mastering the configuration of WFAS, security administrators can dramatically reduce their attack surface and greatly improve their overall security posture.

You will learn:  
- How to configure the Windows firewall  
- How to granularly control inbound and outbound communication  
- How to log and monitor Windows firewall operation

**TMW02** No More Passwords! An Introduction to Windows Hello for Business  
*Introductory / Intermediate*  
RICHARD HICKS  
Wednesday, December 5, 8:00 – 9:15am  
Passwords suck. Everyone knows it! Our best efforts to ensure their strength and protection have proven to be of little value. Credential theft is rampant, and this weakness is often exploited by malicious actors. So why not get rid of them? That’s precisely what Microsoft has been thinking. Windows Hello for Business is a solution designed to replace common passwords with strong multifactor authentication using biometric identification such as facial or fingerprint recognition.

You will learn:  
- What Windows Hello is?  
- The benefits of using Windows Hello for Business  
- Infrastructure requirements for Windows Hello for Business

**TMT08** How I Would Audit Your Windows Security  
*Intermediate*  
SAMI LAIHO  
Tuesday, December 4, 2:45 – 4:00pm  
Get some free consulting worth thousands of dollars! In this session, one of the world’s leading Windows Security Experts, Sami Laiho, will reveal to you what he would audit in your environment, and where you might fail. Sami does this all the time all around the world for companies of different sizes, ranging from small businesses to the biggest on the planet.

You will learn:  
- How to save thousands of dollars of auditing fees  
- How a security auditor would work in your Windows environment  
- What tools you can use to audit on your own network

**TMH03** Securing Service Accounts the Modern Way  
*Introductory / Intermediate*  
JOHN O’NEIL SR.  
Thursday, December 6, 8:00 – 9:15am  
Service Accounts are a fact of life, some services just won’t run correctly under standard built-in contexts. Unfortunately, many organizations historically addressed this problem by creating dedicated user accounts. The problem is that these accounts are often forgotten, their passwords not regularly changed. This creates a sizable security hole! Microsoft addressed this problem years ago with MSAs, evolving these to GMSAs in the latest Windows Server versions. This session will explain what these accounts are, the differences between them, and when to use each. I’ll also show you how to find any
TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)

You will learn:
• The differences between Managed Service Accounts and Group Managed Service Accounts
• When to use an MSA vs. a GMSA
• Why standard user accounts just don’t work for service management

TMH05 Deploying Application Whitelisting on Windows Pro or Enterprise
Intermediate
SAMI LAIHO
Thursday, December 6, 9:30 – 10:45am
“In 2018 the most important security measure in enterprises in whitelisting” says Sami Laiho, Gartner, and multiple other agencies. You can deploy whitelisting on all Windows versions, ranging from Software Restriction Policies for Windows Pro, through AppLocker for Enterprise versions, all the way up to Device Guard. In this session, you’ll see how to deploy whitelisting in different sized networks.

You will learn:
• Setup your environment to use JEA
• Delegating administration through roles
• Create and use JEA endpoints
• Tips, tricks, and gotchas
• Keeping track of user activity using logs

Cloud (Public/Hybrid/Private)

At TechMentor, we leave the marketing presentations at home. Replacing them are real-world discussions on “the cloud” as you’re actually using it: Hybrid, connected, private, and absolutely real. From onsite Azure Stack to everything in the Cloud, we’ve got you covered!

TMT05 Fast Focus: 5 Things Everyone Needs to Know About Azure
Introductory
PETER DE TENDER
Tuesday, December 4, 1:30 – 1:50pm
Azure goes fast, and so does this session. Learn 5 features any Azure admin should become familiar with, in just 20-minutes.

1. Changing colors and other layout options of the Azure Portal to your needs – see how...
2. Doubting Azure security? Peter will show you some killer features you can take home immediately and apply right away
3. What is this Single Sign-On everybody’s talking about? Peter will demo slam you!
4. Deploying internal company resources as an end-user without admin rights? Yep, see it in action
5. Which leaves one minute for Peter to wow you even more with Azure
TECHMENTOR SESSION DESCRIPTIONS BY TRACK (continued)

**TMT11  Securing Access to Office 365, SaaS and On-Premises Applications**
*Introductory / Intermediate*

**OANA ENACHE & HOLLY LOCKHART**
Tuesday, December 4, 4:15 – 5:30pm

Migrating to Office 365? With the rise of phishing attacks and social engineering techniques, usernames and password are no longer enough to secure your organization’s identities. Join us and we’ll show how you can secure access to Office 365, SaaS, and on-premises applications with an innovative approach designed for the modern world using conditional access, multi-factor authentication, and identity protection capabilities delivered through Azure Active Directory.

**You will learn:**
- How conditional access policies help you ensure that only authorized users, devices, and apps can access corporate resources both on-premises and in the cloud
- About Azure AD Multi-factor Authentication and how to secure access to both cloud and on-premises applications with it
- How to implement protection policies to proactively prevent compromised accounts from being abused

**TMH07  Azure Security Unchained**
*Advanced*

**PETER DE TENDER**
Thursday, December 6, 1:00 – 2:15pm

Face it: security becomes more and more important in this digital and cloudy world! Securing your digital workload and applications is crucial to keep your business safe and your data private.

Join this session to find out how Azure Security and OMS security solutions help you to detect, remediate and prevent attacks and breaches in your environment. Come in with a sense of security and leave with all the tools you need to make sure you are secure. We’ll get you started fast to make sure security is not a problem anymore.

**You will learn:**
- Understanding Azure Security Center capabilities
- Architecting Azure solutions with security in mind
- To identify security issues and challenges in Azure

**TMW10  Everything You Need to Know About Microsoft 365**
*Introductory / Intermediate*

**HARJIT DHALIWAL & NICK BRATTOLI**
Wednesday, December 5, 4:00 – 5:15pm

Microsoft’s recent announcement of Microsoft 365 has confused a lot of people. In this session, Nick and Harjit will do their best to make all of that much less confusing. They will explain how licensing works, what is included in Microsoft 365, and how Microsoft is organizing their offerings to enable organizations to collaborate efficiently.

**You will learn:**
- What is included in Microsoft 365?
- How does Microsoft 365 Licensing work?
- How your organization can leverage Microsoft 365?

**TMH10  Azure Stack, What You Need to Know**
*Intermediate*

**PETER DE TENDER**
Thursday, December 6, 2:30 – 3:45pm

Azure Stack is here, and it won’t go away. Learn in this session from Peter De Tender, Azure enthusiast, trainer, Azure MVP, about what makes this on-premises Azure version rock-solid. Spiced up with several demos, Peter walks you from initial deployment, over architecture to actual use scenarios.

**You will learn:**
- About Azure Stack
- How to deploy Azure Stack
- How to build workloads on top of Azure Stack

“POWERSHELL SESSIONS THAT I ATTENDED WERE ALL OUTSTANDING, AS WAS SYSIINTERVALS. LIKewise for WINDOWS TROUBLESHOOTING!”
- Wade Altmon, Florida Tech Group
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Master Consultant

Mikael Nystrom  
Principal Technical Architect, TrueSec

John O’Neill, Sr.  
Chief Technologist, AWS Solutions

Petri Paavola  
Yodamiitti Oy

Panu Saukko  
Consultant / Trainer, ProTrainIT

Nestori Syynimaa  
Senior Consultant, Savelto Plc

For full speaker bios, go to live360events.com/orlando
Artificial Intelligence LIVE!
AI FOR DEVELOPERS AND DATA SCIENTISTS

A New AI Event for Developers and Data Scientists
**AGENDA AT-A-GLANCE**

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<th>AI Application Development</th>
<th>Analytics</th>
<th>Bots</th>
<th>Data Science and Machine Learning</th>
<th>Internet of Things</th>
<th>Deep Learning</th>
</tr>
</thead>
</table>

### Artificial Intelligence Live! Full Day Hands-On Lab: Sunday, December 2, 2018

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>SESSION</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>9:00 AM</td>
<td>Registration, Coffee and Morning Pastries</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td><strong>AIS01</strong> Hands-On Lab: Build a Bot in a Day Using the Microsoft Bot Framework, Cognitive Services and Azure - Brian Randell</td>
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<tr>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>Pre-Conference Registration - Royal Pacific Resort Conference Center</td>
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### Artificial Intelligence Live! Pre-Conference Workshops: Monday, December 3, 2018

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<td>8:30 AM</td>
<td>Registration, Coffee and Morning Pastries</td>
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<td>8:30 AM</td>
<td>5:30 PM</td>
<td><strong>AIM01</strong> Workshop: So You Want to do Data Science, What Now? - Matt Winkler &amp; Euan Garden <strong>AIM02</strong> Workshop: Moving from BI to AI: Artificial Intelligence Skills for Business Intelligence Professionals - Jen Stirrup</td>
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<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group</td>
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### Artificial Intelligence Live! Day 1: Tuesday, December 4, 2018

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<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td><strong>ARTIFICIAL INTELLIGENCE LIVE! &amp; SQL SERVER LIVE! KEYNOTE: To Be Announced</strong></td>
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<tr>
<td>9:15 AM</td>
<td>10:30 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7 <strong>AIT01</strong> Make Your App See, Hear and Think with Cognitive Services - Roy Cornelissen <strong>AIT02</strong> Introduction to Azure Databricks - Andrew Brust</td>
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<tr>
<td>11:00 AM</td>
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<td><strong>LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6</strong> Lunch • Visit the EXPO</td>
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<td>Dessert Break • Visit the EXPO</td>
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<td>1:30 PM</td>
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<td><strong>AIT03</strong> Fast Focus: Externalizing Conversational Context - Heather Downing <strong>AIT04</strong> Fast Focus: Jupyter Notebooks for Artificial Intelligence in Azure - Jen Stirrup</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td><strong>AIT05</strong> Fast Focus: Supervised VS Unsupervised Machine Learning Approach - Leila Etaati <strong>AIT06</strong> Fast Focus: Career Planning for the Next Era of Analytics - Jen Underwood</td>
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<td>2:20 PM</td>
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<td>Networking Break • Visit the EXPO - Pacifica 7</td>
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<td>4:00 PM</td>
<td><strong>AIT07</strong> Speak to Me: Voice App Conversation Practices - Heather Downing <strong>AIT08</strong> Machine Learning with Azure Databricks - Leila Etaati</td>
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<td>4:15 PM</td>
<td>5:30 PM</td>
<td><strong>AIT09</strong> Taking IoT to the Edge - Eric D. Boyd <strong>AIT10</strong> Data Wrangler Magic Wand; Power Query in Excel or Power BI - Reza Rad</td>
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<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Exhibitor Reception - Pacifica 7</td>
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Sessions and speakers subject to change.
AGENDA AT-A-GLANCE (continued)

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<th>Artificial Intelligence Live! Day 2: Wednesday, December 5, 2018</th>
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Sessions and speakers subject to change.
## AGENDA AT-A-GLANCE (continued)

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<td>8:00 AM</td>
<td>9:15 AM</td>
<td>AIH01 Managing the Conversation Flow within a Bot - Rabeb Othmani</td>
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<td>9:30 AM</td>
<td>10:45 AM</td>
<td>AIH03 Machine Learning the Easy Way: Azure Cognitive Services - Eric Potter</td>
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<td>11:00 AM</td>
<td>12:00 PM</td>
<td>ARTIFICIAL INTELLIGENCE LIVE! &amp; SQL SERVER LIVE! PANEL DISCUSSION: Keeping</td>
<td>Andrew Brust (moderator); Thomas LaRock, Jen Stirrup, Jen Underwood,</td>
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<td>Pace with AI and Machine Learning While Maintaining Your Day Job</td>
<td>&amp; Stacia Varga</td>
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<td>12:00 PM</td>
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<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
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<td>1:00 PM</td>
<td>2:15 PM</td>
<td>AIH05 DevOps for AI - Matt Winkler &amp; Euan Garden</td>
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<td>2:30 PM</td>
<td>3:45 PM</td>
<td>AIH07 Getting Started with Deep Learning - Seth Juarez</td>
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<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event</td>
<td>Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day,</td>
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<td>Peter De Tender, Brent Edwards, Kevin Ford, Grant Fritchey, Esteban</td>
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<td>Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas</td>
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<td>LaRock, Vishwas Lele, Rockford Lhotka, Karen Lopez, Matthew McDermott,</td>
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<td>Brian Randell, Paul Schoeflein, Jen Underwood, Rob Windsor</td>
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<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Artificial Intelligence Live! Post-Conference Workshop: Friday, December 7,</td>
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<td>8:00 AM</td>
<td>5:00 PM</td>
<td>AIF01 Workshop: Practical Artificial Intelligence for the Working Software</td>
<td>Seth Juarez</td>
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Sessions and speakers subject to change.

"It was nice having the sessions from different tracks to give me variety and learn some new things."

- William Seale, Sapphire Health
FULL-DAY HANDS-ON LAB
Remember to bring your laptops!

AIS01 Hands-On Lab: Build a Bot in a Day Using the Microsoft Bot Framework, Cognitive Services and Azure
Intermediate
BRIAN RANDELL
Sunday, December 2, 9:00am – 6:00pm
In this all-day, hands-on workshop, you will build an intelligent bot using the Microsoft Bot Framework and Azure Services. You will be writing code in Visual Studio 2017 using the C# programming language and ASP.NET Core. As part of the development process you’ll use Microsoft Visual Studio Team Services (VSTS) to manage your source and track your work as well as create a continuous integration and continuous deployment pipeline.

Starting with “File | New”, you’ll learn the steps for creating and running a bot in Azure. You’ll see how you configure your bot to support multiple channels like Skype and Microsoft Teams. From there you’ll learn how teams can build bots using VSTS.

From there you’ll learn how to leverage artificial intelligence using the Microsoft Bot Framework and Microsoft Cognitive Services. You will add the Language Understanding Intelligent Service (LUIS) to your bot to leverage conversational intelligence and give your bot a natural flow. In addition, you’ll learn about other Cognitive Services features such as QnA Maker to support bots with FAQs.

Finally, you’ll use analytics to track your how your bot is used so you can improve how it works. By the end of the day you’ll have your own bot running and the source in your own source control repo for future use.

You will learn:
• What bots are and why you want to use them
• How build your first bot and let the cloud do the heavy lifting on your bot’s brains
• How to put a good DevOps process around your bot development

Attendee Requirements:
You must provide your own laptop computer for this Hands-On Lab that can access Wi-Fi and access sites on the Internet including but not limited to visualstudio.com, azure.com, nuget.org, and github.com. You will need a copy of the Windows operating system that is compatible with Visual Studio 2017. You will need to be a local administrator.

You’ll need a copy of the latest version of Visual Studio 2017 (any edition—Community, Professional, or Enterprise) with the following workloads installed: ASP.NET and web development and Azure development.

You will also need a Microsoft Azure Subscription where you’re an administrator.

WORKSHOPS

AIM01 Workshop: So You Want to do Data Science, What Now?
Intermediate / Advanced
MATT WINKLER & EUAN GARDEN
Monday, December 3, 8:30am – 5:30pm
Data science is one of the hottest areas in our industry. It is also one of the most confusing and misunderstood. In this workshop, we will review what it takes to do data science, the processes, the people, the skills, the languages and the technology. The workshop will use Microsoft technologies, but we will also discuss, demo, and have hands-on of a series of open source tools and tech as well.

You will learn:
• About AzureML
• Learn R
• Python in Notebooks

AIM02 Workshop: Moving from BI to AI: Artificial Intelligence Skills for Business Intelligence Professionals
Intermediate
JEN STIRRUP
Monday, December 3, 8:30am – 5:30pm
Are you interested in reusing your existing BI skillset in order to add Artificial Intelligence to your skillset? Is your organization interested in applying AI at a practical level? If so, this workshop is for you.

In this workshop, you will leverage your existing BI skillset to learn Microsoft’s latest AI technologies. You will learn AzureML, using your existing SSIS expertise. You will also learn R and Python, using your knowledge of SQL in SQL Server to get a working knowledge of these languages and their use in AI. You will use your conceptual knowledge of Business Intelligence to learn how to choose the right model for your AI work, and how to identify its value and validity.

Bring your laptop and join this session to add AI to your organization’s technical capability, spring boarding from skills that you already possess.

You will learn:
• About AzureML
• Learn R
• Python in Notebooks
Workshop Agenda

9:00am - AI for the Enterprise
  • AI for the Enterprise
  • What is AI? Terminology that you need to know
  • Blueprint for AI in the Enterprise
  • Technology Overview; how do you choose the best tools to provide business value?

In this section, we will look at what you need to know to set the scene for AI for the enterprise. There is a very wide range of technologies in the AI space, and this section will introduce the key players and how they compare with one another, along with clear explanations on how they are used best. The session will also propose a blueprint for delivering successful AI projects, from the business perspective.

10:00am - Get started with AI in Azure
  • Introduction to AzureML
  • Build simple machine learning models with Azure Machine Learning

In this section, you will get hands-on experience in practice building a machine learning model from end-to-end, using AzureML. This is intended to formalize some of the knowledge you have learned so far. In this section, you will ingest data, select a model, train and test a model, and make it production-ready. Then, you can visualize your results in Power BI.

11:30am - Selecting your model in AI
  • An exploration of models in AI
  • Selecting models in AI
  • Evaluating models in AI

In this section, we will cover AI models in detail. We will look at the models themselves, their differences and similarities, and how to choose between the models. We will also look at ways of evaluating models.

12:30 – 1:30pm Lunch

1:30pm - Working with Microsoft ML Server and R
  • Fundamentals of R
  • Microsoft ML Server
  • Using R with Microsoft ML Server

In this section, we will cover the fundamentals of R, and how we can use it to create robust, production models using Microsoft ML Server. R is a first-class citizen in Microsoft’s Data Platform offerings, and it touches other technologies, such as AzureML, SQL Server and Power BI. We will cover its use in Microsoft Machine Learning Server to help provision a flexible enterprise platform for analyzing data at scale, building intelligent apps, and discovering valuable insights across your business. Machine Learning Server meets the needs of all constituents of the process – from data engineers and data scientists to line-of-business programmers and IT professionals. It offers a choice of languages and features algorithmic innovation that brings the best of open-source and proprietary worlds together.

2:45pm - Break

3:00pm - Python Data Science Notebook and Labs

Python is an important skill in analysing data, data science and artificial intelligence. In the final segment, you will learn about Python, how to use it, and how to use Notebooks to work with your code.

5:00 - Wrap-up and QA

AIF01 Workshop: Practical Artificial Intelligence for the Working Software Engineer

Intermediate

SETH JUAREZ

Friday, December 7, 8:00am – 5:00pm

As a new generation of software consumers hit the market they are beginning to expect a bit more from their digital experiences. This workshop is designed to level-up your current software experiences by showing how a developer can infuse AI into current and future projects. Attendees can expect to learn practical approaches for consuming an producing AI models. The day will start with the low hanging fruit available through prebuilt AI models and how developers can both customize and incorporate them into their existing software. The second half will focus on the basics of machine learning, the data science process, and related services for creating customized ML models and incorporating them into future projects.

AI Application Development

Artificial Intelligence is changing how you build apps. Technologies like advanced machine learning, natural language processing, and more, mean you can build truly “smart apps”. With today’s accelerated development cycles, you need to be ready to build the next generation of self-learning applications. In this track, you’ll find talks on interacting with intelligent agents like Alexa and Cortana, Microsoft’s Cognitive Services, Azure machine Learning, and DevOps for AI.
ARTIFICIAL INTELLIGENCE LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**AIT01 Make Your App See, Hear and Think with Cognitive Services**  
*Introductory / Intermediate*  
ROY CORNELISSEN  
Tuesday, December 4, 9:15 – 10:30am  
Artificial intelligence used to be something super complex but Microsoft is making it simple and available for any developer to integrate it in their apps. In this session we’ll look at how you can use features like computer vision, speech recognition and other AI features of cognitive services in your Xamarin Mobile apps. The session will be packed with hands on demos and live coding. After this session you are ready to implement these cool features in your own apps yourself!  
You will learn:  
• About the possibilities of the Microsoft Cognitive Services platform  
• How to use cloud ML services in your mobile apps  
• How to take an ML model offline

**AIT07 Speak to Me: Voice App Conversation Practices**  
*Introductory*  
HEATHER DOWNING  
Tuesday, December 4, 2:45 – 4:00pm  
What does it mean to develop a good interaction - without any visual aids? Natural Language Processing (NLP) has opened the door to communicating vocally, and made more easy to develop with popular platform APIs and in-home devices like Google Home and Amazon Echo. How do you start thinking about building for one of these platforms, or all of them? We will go over what has to be kept in mind for the development life cycle and empower you to make the architectural decisions that make sense with this emerging software skillset. This is a high level architectural and voice design discussion to avoid pitfalls and enhance user delight with your chatbot or voice skill.  
You will learn:  
• About the ideal design for voice apps  
• Ways to approach structuring code for voice  
• The principals of Cooperative conversation

**AIW01 Building for Alexa with Web API**  
*Introductory*  
HEATHER DOWNING  
Wednesday, December 5, 8:00 – 9:15am  
This overview course will present ways to integrate your existing software or database into an Alexa Skill, allowing for voice-activated, meaningful interaction with a user. Using this SAAS approach, with Web API hosted on Azure can make this process easy for rapid prototyping. We will build and deploy a skill that you can use immediately with your Alexa enabled device, and discuss the challenges of the publishing journey to get in Alexa’s Skill Store.

**You will learn:**  
• Overall concepts for building on the Alexa platform  
• Discover basic voice design principals  
• How to extend existing services written in C#/.NET to fulfill your Alexa skill

**AIH05 DevOps for AI**  
*Intermediate /advanced*  
MATT WINKLER & EUAN GARDEN  
Thursday, December 6, 1:00 – 2:15pm  
It’s increasingly important to incorporate artificial intelligence with the rest of the software development lifecycle. In this talk, we’ll highlight best practices for making AI and machine learning a part of every software project. Models can often be treated like software components but have some unique characteristics which we will focus on in this talk. We’ll cover continuous integration and deployment, staged deployments, model monitoring & retraining, and more. Come and learn how to supercharge your application development with AI!
This talk will not focus much on the mechanics of machine learning, rather, we will spend time working through the integration with your software development practices.

**Analytics**

As important as predictive machine learning models can be, you can’t have Artificial Intelligence without straight analytics. Data preparation, visualization and analysis are all critical to the AI process and they’re super-important in their own right, too. Sessions in this track will help you get oriented in both commercial and open source analytics technologies, including Power BI, R, and Apache Spark.

**AIT02 Introduction to Azure Databricks**

*Introductory*

**ANDREW BRUST**  
**Tuesday, December 4, 9:15 – 10:30am**

Beyond Hadoop, Apache Spark has emerged as the Big Data analytics platform of choice for many companies. And while Spark is available on Azure HDInsight as a specialized cluster type, a new Spark service from Microsoft and Databricks (the company founded by Spark’s creators) has emerged.

That service--Azure Databricks (ADB)--is now in general availability. Geared both towards analytics and machine learning/IA, ADB lets developers work in notebooks, offline, or interactively with running clusters; and lets the notebooks execute as production jobs on a scheduled basis, starting up Spark clusters on demand and shutting them down when the work is done. This session will cover the combination of the concepts, service mechanics, and code (in Python and Scala) necessary for you to do analytics, create dashboards, and train machine learning models on Azure Databricks.

**You will learn:**  
• About the fundamentals of Apache Spark, Spark SQL and Spark MLib
• How to use Databricks notebooks and dashboards
• How to manage clusters, serverless pools and jobs
• How to integrate Azure Databricks with blob storage and other Azure services
• How to write Python and Scala code for analytics and machine learning

**AIT06 Data Visualization Super Power**

*Intermediate*

**REZA RAD**  
**Wednesday, December 5, 2:00 – 3:15pm**

For any data scientist or data professional, data visualization is the key to the world of insight. Good visualization can bring huge insight and benefits, while bad visualization can lead to poor business decisions. In this session, you will learn the best scenario for various visualization types, with examples ranging from basic line charts and bar/column charts to many more sophisticated viz styles. You’ll also learn tips and tricks to control your visuals’ interactivity; best practices for using colors; and important guidelines that help you convey the right message in your visualization solution.

**You will learn:**  
• How to use visualizations and charts
• How to convey the right message through the right visualization
• Best practice of using colors, interactivity of visuals, and visualization styles

**AIW06 Intelligent Reports with Azure Cognitive Services and Power BI**

*Intermediate*

**LEILA ETAATI**  
**Wednesday, December 5, 4:00 – 5:15pm**

Data analysis isn’t just about numbers and structured data. Many organizations, a need to analyze text, image or voice files, to derive sentiment from customer comments on Web sites, extract the primary purpose of a customer service call from call scripts, detect the language of customer feedback and more. To address such requirements, Azure Cognitive Services provides a set of APIs, SDKs, and services that allow developers to do text analysis without writing special code in R or Python. In this session, Leila explains text analytics concepts and explores scenarios such as sentiment...
analysis, key phrase extraction, and language detection. Next, she’ll demonstrate the process of text analytics in Power BI using Cognitive Services. She will also work through a demo of sentiment analysis on Twitter data using Microsoft Flow, Cognitive Services, and Power BI. Finish with a look at how to perform OCR-based text recognition with the help of those same technologies along with Power Apps.

**You will learn:**
- What is text Analytics
- How to set it up cognitive service for the aim of Text analytics and how to call it from Power BI
- How to great a smart application for handwriting detection with usage of Power Apps, Microsoft Flow, Cognitive services and Power BI

**Bots**
Chat bots are a new UI that your customers are ready to use. Just as building a Windows UI is different from building a Web UI, building good chat bots requires thought and planning. You then have vendors providing frameworks to make it easy to build and host your bots whether their focused-on commerce, the Enterprise, IoT, or just information. In this track you’ll find a hands-on workshop to build a bot using Microsoft’s Bot Framework, as well as sessions on building a holographic assistant, and managing a bot’s conversation flow.

**AIW05 Building a Holographic Assistant with Bot Framework, LUIS & Mixed Reality**
*Advanced*

**NICK LANDRY**
Wednesday, December 5, 2:00 – 3:15pm
Take your customers’ bots beyond Skype, Slack, Microsoft Teams and Facebook and bring them into the real world with Mixed Reality. Why simply type-chat with a bot when you could actually look at them, talk to them and listen to their answers? HoloBot is an open source reusable Windows Mixed Reality Unity project for Microsoft HoloLens that acts as a holographic client for a chatbot. HoloBot has already been used in the pharmaceutical industry at Merck where lab scientists can lookup procedure documents using voice and gestures, and review those documents as holograms visible in their work space. This session is a deep dive into this 3D app that lets users interact with a 3D floating avatar using speech recognition, getting answers spoken back by the “bot” using Text-to-Speech. The commands sent to the bot are powered by the Microsoft Bot Framework via the Direct Line API, and parsed by LUIS from Microsoft Cognitive Services.

**You will learn:**
- How to build an interactive avatar in 3D using Mixed Reality, Speech Recognition and Text-to-Speech
- How to build a custom Bot Framework channel using the Direct Line API
- How to build a speech-enabled conversational bot that is optimized for Mixed Reality integration

**AIH01 Managing the Conversation Flow within a Bot**
*Introductory*

**RABEB OTHMANI**
Thursday, December 6, 8:00 – 9:15am
If there’s one challenge with bots, that has to be how effortless and smooth the interaction between the user and the bot has to be. The user shouldn’t even feel like conversing with a program. That’s why thinking about how to handle the conversation flow when building bots is an essential task for developers. In this talk, we will go through how to manage the conversation flow with Microsoft Bot Framework and dialogs.

We will tackle some scenarios like prompt input, validate input, multiple dialogs, handling the context etc...

**You will learn:**
- An intro to the Bot framework and dialogs
- How to handle a conversation flow
- About the different dialogs

**Data Science and Machine Learning**
The Data Science and Machine Learning (ML) track is central to the whole conference. This subject matter covers the very basis of predictive analytics, the mechanics of designing predictive models and techniques for managing them in production. The workshops and sessions in this track will help both practicing and emerging data scientists learn about core data science concepts, techniques, languages, services and tools.
ARTIFICIAL INTELLIGENCE LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**AIT04 Fast Focus: Jupyter Notebooks for Artificial Intelligence in Azure**
*Introductory*

JEN STIRRUP  
*Tuesday, December 4, 1:30 – 1:50pm*

Microsoft provides a free cloud hosted Jupyter Notebook solution with Azure Notebooks, which offer minimal overhead and opportunities for collaboration. Azure Notebooks provides execution environments for Python 2, Python 3, F#, and R. In this Fast Focus session, you will learn about the power and flexibility of Azure Notebooks, see them in action, and why it’s useful to run them on Microsoft Azure.

You will learn:
- About Jupyter Notebooks
- About Jupyter Notebooks in Azure
- About executing code in R in a Jupyter notebook

**AIT06 Fast Focus: Career Planning for the Next Era of Analytics**
*Introductory / Intermediate*

JEN UNDERWOOD  
*Tuesday, December 4, 2:00 – 2:20pm*

Cloud, automation, and emerging intelligent platforms are just beginning to reshape the analytics landscape. Cloud has become a formidable force altering business models, project delivery, architecture, and team structures. Automation has expedited and eliminated traditional processes. Intelligent analytics platforms powered by artificial intelligence have expanded the reach of analytics and machine learning to the masses. While there will always be work for humans in the analytics world, the nature of that work is already changing. Come to this fast-paced exploration of what analytics teams and roles might look like in three years to plan the evolution of your career.

**AIT05 Fast Focus: Supervised VS Unsupervised Machine Learning Approach**
*Introductory*

LEILA ETAATI & REZA RAD  
*Tuesday, December 4, 2:00 – 2:20pm*

In this session a brief introduction to two main Machine Learning approach: Supervised and Unsupervised Machine learning will be presented. The different approach for supervised machine learning such as classification and regression will be explained. Moreover, some example of unsupervised learning such as clustering and Market Basket Analysis will be presented.

**AIT08 Machine Learning with Azure Databricks**
*Intermediate*

LEILA ETAATI  
*Tuesday, December 4, 2:45 – 4:00pm*

Azure Databricks is an Apache Spark-based platform optimized for use for data science and machine learning (ML). Data scientists can use Azure Databricks to collect and clean data, then design and test machine learning models using R, Python, Scala or SQL scripts. In this session, Leila will provide a brief introduction and demonstration on machine learning with Azure Databricks. She’ll show you how to fetch data from Azure Data Lake Storage, then clean the data using Scala and SQL scripts. Next, she will demonstrate how to visualize the data to profile the data, find outliers and more. Finish by showing how to build a machine learning model on the collected and cleaned data and view the results in Power BI. This session will build on the Introduction to Azure Databricks session earlier in the day, giving you a deeper dive on Azure Databricks’ AI and ML capabilities.

You will learn:
- How to use Azure Databricks for Machine Learning Purpose
- How to get data from Azure Data Lake Store for ML Purpose and how to send the final result to Power BI
- How to Run R, Python, Scala, and SQL codes for ML purpose inside Azure Databricks

**AIW04 The Case for R in AI - Statistical Perspective to Data, Inference and Prediction as Used by AI Applications**
*Intermediate / Advanced*

JEN STIRRUP  
*Wednesday, December 5, 9:30 – 10:45am*

Are you a business intelligence professional or a developer who works with data? You should consider adding R to your skillset so you can add Artificial Intelligence to your applications. R is a popular for analysis and data visualization, but it also can be used for concepts in AI such as inference and prediction. In this demo-based session, we will go through in-depth examples of using R for the purpose of Artificial Intelligence work, and see how we can embed it in other Microsoft technologies.

You will learn:
- About R
- About AI Modelling
- About using R in different Microsoft technologies
AIW07  ML for the .NET Developer  
Intermediate  
MATT WINKLER & EUAN GARDEN  
Wednesday, December 5, 4:00 – 5:15pm  
Not everyone wants to learn R and Python to do Machine Learning, but yet consumption of ML capabilities in C# apps is becoming a critical component of a modern app architecture. Microsoft introduced ML.Net to the developer community at Build 2018. It’s a C# set of ML libraries being developed via open source and targeting cross platform scenarios. Despite its recent release, ML.Net is not new as it is derived from one of Microsoft’s most heavily used internal libraries. As such, it is very mature and is used by Bing, Office, Windows, and Xbox as part of their ML strategies. Come learn how to bring ML to your app today.

AIW02  Scaling Machine Learning in Azure  
Intermediate /advanced  
MATT WINKLER & EUAN GARDEN  
Thursday, December 6, 8:00 – 9:15am  
It means many things to scale machine learning. It could be that you have a ton of data, or that you need a lot of compute to find the right hyperparameters for training a model. But it could also be that you need to deploy to scale, have thousands and thousands of models, or have a team that’s growing. In this talk, you’ll learn how Azure can help you scale your machine learning to new levels. We’ll show how to start small, and then grow using Azure in all of the dimensions of scaling. By the end of the talk, you’ll be able to train and deploy models at any scale! This talk assumes some familiarity with machine learning, and will focus on Python, but the concepts discussed will be generally applicable to any language and platform.

AIH06  How To Avoid Building Bad Predictive Models  
Introductory / Intermediate  
JEN UNDERWOOD  
Thursday, December 6, 1:00 – 2:15pm  
Don’t be naive when it comes to building machine learning models. Despite the unprecedented speed and ease of creating predictive models in modern tools, the human mind is still essential for generating good models. From selecting the right problem to solve to preventing algorithm bias, machine learning is still an art and a science. To reap the benefits of artificial intelligence and machine learning, we will share the most common mistakes – and battle-proven practices – to help you build better models. You will learn:  
• About selecting the right problem  
• About providing adequate data  
• About preventing algorithm bias

AIH07  Getting Started with Deep Learning  
SETH JUAREZ  
Thursday, December 6, 2:30 – 3:45pm  
Attendees will learn the basics of machine learning along with a gentle introduction to the mechanics of Deep Learning. This session will also equip attendees with the basic intuition behind neural networks in both a friendly and practical way effectively converting machine learning into an engineering problem as opposed to a marketing one. Included in this session is a basic overview of TensorFlow and how developers can use this framework, in conjunction with AzureML, to create powerful AI models that can be used in business software.

AIH08  Innovations in Automating Analytics and Machine Learning  
Introductory / Intermediate  
JEN UNDERWOOD  
Thursday, December 6, 2:30 – 3:45pm  
Analytics and machine learning have become key competitive differentiators in a big data world. Vast amounts of data are already overwhelming existing manual tools and analytics processes. When faced with hundreds of variables, a human’s ability to efficiently identify new insights or detect changing patterns manually has also been exceeded. To address these challenges, organizations are adopting new user-friendly, automated augmented analytics and machine learning solutions. In this demo intensive session, we’ll explore the pros and cons of the latest technological innovations. We’ll also discuss how these advances will alter the analytics and data science landscape. You will learn:  
• About Automated Augmented Analytics and Machine Learning  
• About the Pros and Cons of Automated Offerings  
• How Future Data Science Roles will Evolve

Internet of Things  
When you think about AI, you often think about devices and how they enhance the experience and feeds the data lakes. With billions of physical devices out there, the Internet of Things (IoT) promises to a critical area for many companies. In this track you’ll find sessions that help you understand how IoT fits in to the Microsoft developer’s stack and how you build IoT solutions on the edge of your network and the Internet.
ARTIFICIAL INTELLIGENCE LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**AIT09 Taking IoT to the Edge**  
*Introductory / Intermediate*  
**ERIC D. BOYD**  
Tuesday, December 4, 4:15 – 5:30pm  
In real-world commercial and industrial scenarios, connecting the many sensors and devices that exist in your environment directly to the cloud isn’t practical and, in some scenarios, just isn’t possible. Azure IoT Edge can enable you to connect these devices and sensors to still leverage Azure’s IoT capabilities on-premises in your environment and gateway your many sensors to the Azure public cloud to selectively send data and utilize Azure’s public cloud capabilities. Join this session to learn about Azure IoT Edge and how you can build IoT applications that work in your environment with your existing devices.  
*You will learn:*  
- Overview of Azure IoT Edge  
- How to build IoT applications that can run in Azure and on-prem  
- How to utilize your existing sensors and devices using Azure IoT Edge gateway

**AIW03 Practical Internet of Things for the Microsoft Developer**  
*Introductory / Intermediate*  
**ERIC D. BOYD**  
Wednesday, December 5, 9:30 – 10:45am  
Internet of Things (IoT) is a hot tech buzzword right now, and it ranges from wearables like the Fitbit to home automation like Nest and WeMo. But is this trend limited to a small set of companies and hobbyist hackers, or is it something broader and applicable to the masses? In this session, Azure MVP Eric D. Boyd will give you a practical view of IoT starting by defining what IoT is, and the various components that are required and optional components that can enhance IoT solutions. We will then walk through how to get started creating IoT devices, sensors and clients with Windows. While devices are fun to build and play with, the most interesting piece of IoT is the backend and the data. As a result, next we will create a backend for working with IoT data at mass scale using Azure’s IoT Suite, and using that data to build valuable analytics and insight. Finally, Eric will present a framework for identifying and evaluating IoT opportunities in your organizations. If you want to demystify IoT, cut through the hype, and get to practical scenarios and applications, you will not want to miss this session.  
*You will learn:*  
- Overview of Internet of Things  
- How to rapidly prototype devices using Windows IoT Core  
- Interacting with IoT devices at scale using Azure IoT Suite

**AIW02 Deep Learning in Microsoft Azure: CNTK, CaffeOnSpark and Tensorflow**  
*Intermediate / Advanced*  
**JEN STIRRUP**  
Wednesday, December 5, 8:00 – 9:15am  
What is Microsoft’s approach to Deep Learning, and how does it differ from Open Source alternatives? In this session, we will look at Deep Learning, and how it can be implemented in Microsoft and Azure technologies with the Cognitive Toolkit, Tensorflow in Azure and CaffeOnSpark on AzureHDInsight. Join this session in order to understand deep learning better, and how we can use it to provide business and technical benefits in our organizations.  
*You will learn:*  
- About Deep Learning in Microsoft Azure with CNTK  
- About Deep Learning in Microsoft Azure using Open Source technologies with CaffeOnSpark  
- About Deep Learning in Microsoft Azure using Open Source technologies with Tensorflow

**AIH04 Chest X-ray Image Analysis with Deep Learning**  
*Introductory / Intermediate*  
**VISHWAS LELE**  
Thursday, December 6, 9:30 – 10:45am  
In this session we will look at using Microsoft CNTK to analyze chest x-ray images – More specifically, we will look at techniques like deep neural networks and transfer learning to automatically distinguish between normal and abnormal chest x-ray images.  
*You will learn:*  
- About CNTK  
- About DNN and Transfer Learning  
- How to use CNTK to solve chest x-ray image classification
CONFERENCE CO-CHAIRS AND ADVISORY BOARD

CONFERENCE CO-CHAIRS

Andrew Brust  
CEO and Founder, Blue Badge Insights  
Artificial Intelligence Live! Conference Co-Chair

Brian Randell  
Partner, MCW Technologies  
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ARTIFICIAL INTELLIGENCE LIVE! CONFERENCE SPEAKERS

Eric D. Boyd  
Founder & CEO, responsiveX

Andrew Brust  
CEO and Founder, Blue Badge Insights  
Artificial Intelligence Live! Conference Co-Chair

Roy Cornelissen  
Lead Consultant, Xpirit

Heather Downing  
Coder. Entrepreneur. Passionate for the impossible

Leila Etaati  
Data Scientist, PhD, MVP, and BI Consultant, and Speaker

Euan Garden  
Principal Program Manager, Azure AI, ML and Data Science, Microsoft

Seth Juarez  
Cloud Developer Advocate, Microsoft

Nick Landry  
Senior Software Engineer, Microsoft

Vishwas Lele  
CTO, Applied Information Sciences

Rabeb Othmani  
Developer Advocate, Nexmo

Eric Potter  
Software Architect, Aptera Software

Reza Rad  
Author, Trainer, Speaker and Consultant

Jen Underwood  
Founder, Impact Analytix, LLC

Jen Underwood  
Founder, Impact Analytix, LLC

Matt Winkler  
Group Program Manager, Machine Learning at Microsoft

Jen Stirrup  
Principal, Data Relish Ltd

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## AGENDA AT-A-GLANCE

<table>
<thead>
<tr>
<th>Managing Office 365</th>
<th>SharePoint, Office 365 and the Cloud</th>
<th>High-Value SharePoint Workloads: Search, Flow, and PowerApps</th>
<th>Developing for Office, Office 365 and SharePoint</th>
<th>Office 365 Identity and Security</th>
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<tbody>
<tr>
<td><strong>START TIME</strong></td>
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<td><strong>Office &amp; SharePoint Live! Full Day Hands-On Lab: Sunday, December 2, 2018</strong></td>
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<td>7:30 AM</td>
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<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td><strong>OSS01</strong> Hands-On Lab: Your Search is Broken - Let’s Fix It! - Agnes Molnar and Matthew McDermott</td>
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<tr>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>Pre-Conference Registration - Royal Pacific Resort Conference Center</td>
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<tr>
<td><strong>START TIME</strong></td>
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<td><strong>Office &amp; SharePoint Live! Pre-Conference Workshop: Monday, December 3, 2018</strong></td>
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<td>8:30 AM</td>
<td>5:30 PM</td>
<td><strong>OSM01</strong> Workshop: Modern Application Development with Office, SharePoint and Azure - Eric Shupps</td>
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<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group</td>
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<tr>
<td><strong>START TIME</strong></td>
<td><strong>END TIME</strong></td>
<td><strong>Office &amp; SharePoint Live! Day 1: Tuesday, December 4, 2018</strong></td>
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<td>8:00 AM</td>
<td>9:00 AM</td>
<td>OFFICE &amp; SHAREPOINT LIVE! KEYNOTE: What is Keeping You from the Cloud? It’s You! Neil Hodgkinson, Senior Program Manager, O365 CXP Team, Microsoft and Aimme Triplet, Engineer, Fast Track Center, Microsoft</td>
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<td>9:15 AM</td>
<td>10:30 AM</td>
<td><strong>OST01</strong> Getting Started with Office 365 Groups, Team Sites and OneDrive for Business - Dan Usher</td>
<td><strong>OST02</strong> An Overview of the Office Development Platform - Bill Ayers</td>
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<tr>
<td>10:30 AM</td>
<td>11:00 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
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<td>11:00 AM</td>
<td>12:00 PM</td>
<td>LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6</td>
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<td>Lunch • Visit the EXPO</td>
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<td>Dessert Break • Visit the EXPO</td>
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<td>2:00 PM</td>
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<td><strong>OST03</strong> Fast Focus: The 5 Most Important Aspects to Deploying Office 365 - Ben Stegink</td>
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<td>Networking Break • Visit the EXPO - Pacifica 7</td>
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<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td><strong>OST05</strong> What’s New and Improved in SharePoint 2019 - Neil Hodgkinson and Aimme Triplet</td>
<td><strong>OST06</strong> Developing SharePoint Framework Solutions for the Enterprise - Eric Shupps</td>
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<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td><strong>OST07</strong> Why You Need to Invest Into Search and How to Start this Journey? - Agnes Molnar</td>
<td><strong>OST08</strong> An Introduction to Development with the SharePoint Framework (SPFx) - Rob Windsor</td>
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<tr>
<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Exhibitor Reception - Pacifica 7</td>
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Sessions and speakers subject to change.
### AGENDA AT-A-GLANCE (continued)

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<thead>
<tr>
<th>Session Type</th>
<th>Date</th>
<th>Time</th>
<th>Session Name</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>Managing Office 365</td>
<td>Wednesday, December 5, 2018</td>
<td>7:30 AM - 8:00 AM</td>
<td>Registration</td>
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<tr>
<td></td>
<td></td>
<td>8:00 AM - 9:15 AM</td>
<td>OSW01 Managing and Configuring Office 365 Identity</td>
<td>Scott Hoag</td>
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<td>OSW02 Introduction to Azure Web Applications for Office and SharePoint Developers</td>
<td>Eric Shupps</td>
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<tr>
<td></td>
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<td>9:30 AM - 10:45 AM</td>
<td>OSW03 Collaborating, Inside and Out - Building Secure Sharing Solutions</td>
<td>Ben Curry</td>
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<td>OSW04 Enterprise JavaScript Development Patterns</td>
<td>Rob Windsor</td>
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<td>10:45 AM - 11:30 AM</td>
<td>Networking Break - Visit the EXPO</td>
<td>Pacifica 7</td>
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<td>11:30 AM - 12:30 PM</td>
<td>LIVE! 360 KEYNOTE: Enterprise Transformation (And You Can Too)</td>
<td>Donovan Brown, Principal DevOps Manager, Cloud Developer Advocacy Team, Microsoft</td>
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<td>12:30 PM - 1:30 PM</td>
<td>Birds-of-a-Feather Lunch</td>
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<td>1:30 PM - 2:00 PM</td>
<td>Dessert Break - Visit the EXPO</td>
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<td>2:00 PM - 3:15 PM</td>
<td>OSW05 Your Office 365 Environment by the Numbers</td>
<td>Ben Stegink</td>
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<td>OSW06 Microsoft Graph: The Toolkit for Building Modern Business Solutions</td>
<td>Bill Ayers</td>
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<td>3:15 PM - 4:00 PM</td>
<td>Networking Break - Visit the EXPO - Expo Raffle @ 3:30 p.m. - Pacifica 7</td>
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<td>4:00 PM - 5:15 PM</td>
<td>OSW07 Setting Up Directory Synchronization for Office 365</td>
<td>Dan Usher</td>
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<td>OSW08 Smart UI with Adaptive Cards - Reducing Friction and Improve Productivity</td>
<td>Paul Schaeflein</td>
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<td>7:30 PM - 9:00 PM</td>
<td>Live! 360 Dessert Luau - Wantilan Pavilion</td>
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</tbody>
</table>

Sessions and speakers subject to change.

"I LIKED THAT THERE WAS TIME FOR QUESTIONS DURING, AFTER, AND BEFORE THE SESSIONS."

- David Bliss, Nexteer Automotive
### AGENDA AT-A-GLANCE (continued)

<table>
<thead>
<tr>
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<td>10:45 AM</td>
<td>OSH03 Securing Office 365 and SharePoint with Azure Active Directory</td>
<td>Scott Hoag</td>
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<tr>
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<td>10:00 AM</td>
<td>OSH02 Introduction to the SharePoint Developer PnP Core Libraries</td>
<td>Rob Windsor</td>
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<tr>
<td>10:15 AM</td>
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<td>OSH04 PowerApps - Beyond the Basics</td>
<td>Paul Schaeflein</td>
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<tr>
<td>11:45 AM</td>
<td>12:45 PM</td>
<td>Office &amp; SharePoint Live! Panel Discussion: Is It Time for IT Pros to Start Trusting Developers?</td>
<td>Matthew McDermott (Moderator); Ben Curry, Paul Schaeflein, &amp; Rob Windsor</td>
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<tr>
<td>12:30 PM</td>
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<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
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<tr>
<td>1:45 PM</td>
<td>3:00 PM</td>
<td>OSH05 SharePoint Search and Taxonomy Better Together</td>
<td>Matthew McDermott</td>
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<tr>
<td>2:15 PM</td>
<td>3:30 PM</td>
<td>OSH06 TypeScript for SharePoint Developers</td>
<td>Rob Windsor</td>
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<td>3:45 PM</td>
<td>4:00 PM</td>
<td>OSH08 Reach for the Cloud: Extend your SharePoint Framework Solutions with the Power of Microsoft Graph</td>
<td>Bill Ayers</td>
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<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event</td>
<td>Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day, Peter De Tender, Brent Edwards, Kevin Ford, Grant Frithey, Esteban Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas LaRock, Vishwas Lele, Rockford Lhotka, Karen Lopez, Matthew McDermott, Brian Randell, Paul Schaeflein, Jen Underwood, Rob Windsor</td>
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**Office & SharePoint Live! Post-Conference Workshop: Friday, December 7, 2018**

<table>
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<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>OSF01 Workshop: Developing Components for SharePoint and Teams</td>
<td>Paul Schaeflein</td>
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</tbody>
</table>

Sessions and speakers subject to change.

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**"THE SESSIONS ON SHAREPOINT, JAVASCRIPT AND ANGULAR JS WERE THE MOST HELPFUL TO ME!"**

- Alexander Toro, School District of Palm Beach County
OFFICE & SHAREPOINT LIVE! SESSION DESCRIPTIONS BY TRACK

FULL-DAY HANDS-ON LAB
Remember to bring your laptops!

OSS01 Hands-On Lab: Your Search is Broken - Let’s Fix It!
Introductory
AGNES MOLNAR AND MATTHEW MCDERMOTT
Sunday, December 2, 9:00am – 6:00pm
Your users are complaining. They cannot find anything in SharePoint or SharePoint Online. Search doesn’t provide relevant results. Using search is not intuitive at all. The users want search to know their intent. To help them. To make their jobs easier. Instead, it’s messy. It’s useless. It’s a pain. Nobody uses it.

You know it can be better. You just need help with how to fix it, step by step. How do you take the first steps? How to make your users happy searchers. How to help them find what they are searching for.

This hands-on lab is for you. What Agnes and Matthew bring to this hands-on workshop is a broken search environment and we’ll fix it together. You’ll get an understanding on how search works, what makes it useless, how you can improve it step-by-step, and what you can do to make it your users’ favorite place to go after all. You’ll get not only guidance and an action plan, but also immediate hands-on experience.

Bring your own questions, too, and Agnes and Matthew will help fix that as well.

You will learn:
• Why out of the box search is frustrating and inadequate
• What can go wrong in search and how to fix it
• How to keep search clean and organized
• How to prevent search from getting messy in the future

WORKSHOPS

OSM01 Workshop: Modern Application Development with Office, SharePoint and Azure
Intermediate
ERIC SHUPPS
Monday, December 3, 8:30am – 5:30pm
Progress can sometimes be difficult. Unlike times past, when developers had limited options for building Office and SharePoint solutions, the current landscape offers a confusing array of options for building on-premises, cloud and hybrid solutions. From SharePoint add-ins to Azure web applications, there is a lot to know about how, when, where and why to use each development model. In this full-day interactive workshop, we will explore each option, discuss the pros and cons, determine the optimal conditions for each, and see them in action with a series of deep-dive demonstrations. You will learn the prerequisites for building modern Office and SharePoint applications, gain exposure to the tools and platforms, walk through detailed use cases and equip yourself with the knowledge of not only how to create apps and add-ins, but also which to use in each situation.

You will learn how to:
• Understand the different development models for SP/O365 and when to use each for maximum effectiveness
• Create SharePoint add-ins, Office add-ins, Azure AD applications and SharePoint Framework solutions
• Gain an in-depth understanding of various authentication and authorization methods for SP/O365 applications along with the CSOM, REST and Graph APIs

OSF01 Workshop: Developing Components for SharePoint and Teams
PAUL SCHAEFLEIN
Friday, December 7, 8:00am – 5:00pm
The SharePoint Framework component model is coming to Microsoft Teams. This convergence opens many possibilities for re-use of components, as well as expanding the adoption of both platforms in organizations.

This workshop will focus on the development of user-interface components for Microsoft Teams tabs and SharePoint web parts using TypeScript, React, UI Fabric components and styles.

Managing Office 365
Managing an Office 365 tenant and being prepared for the drop of the next suite of cloud-enabled features can keep even the most attentive administrator busy. Ensuring that your Office 365 tenant is delivering the optimal end user experience while managing licensing and delivery of the right tools at the right time can be overwhelming. The sessions in this track are geared primarily to IT pros responsible for Office 365. The first-class speakers will guide you through the nuances of Office 365 management and administration and equip you to effectively control and support SharePoint Online and the many supporting services, with both GUI and PowerShell methodologies.
OFFICE & SHAREPOINT LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

**OST03** Fast Focus: The 5 Most Important Aspects to Deploying Office 365  
*Introductory*  
**BEN STEGISINK**  
**Tuesday, December 4, 1:30 – 1:50pm**  
Are you looking to roll out Office 365 to your organization? Have you already rolled it out and want to make sure you got off on the right foot? In this 20-minute session, we’ll look at the 5 most important aspects of standing up and deploying an Office 365 tenant. If you don’t do these right the first time, you may live to regret it! We’ll spend a few minutes looking at these 5 topics, what you should do, what you shouldn’t do, and steps you can take to assist you in creating an Office 365 environment you can be proud of!  
**You will learn:**  
• What to think about before deploying Office 365  
• What not to do when standing up Office 365  
• First things to do after deploying Office 365

**OSW05** Your Office 365 Environment by the Numbers  
*Intermediate*  
**BEN STEGISINK**  
**Wednesday, December 5, 2:00 – 3:15pm**  
No matter what company you work for or what industry you’re in, you’ll probably find yourself in a scenario where someone wants a report about something in Office 365. It could be around e-mail, SharePoint, licensing, user activity or anything else in Office 365. In this session, we’ll look at 2 aspects of reporting in Office 365. We’ll start off by looking at what’s immediately available in Office 365 from a reporting perspective. This doesn’t require building anything or really doing much outside of maybe clicking a button to enable some functionality. These reports and the data are just there for you to grab and consume. Secondly, we’ll look at extending the reporting in Office 365 by building our own reporting solution. This will be a 100% cloud-based reporting solution leveraging Azure, PowerShell and PowerBI. The only “code” we’ll use in creating this solution will be some PowerShell scripts. You’ll leave this session with both the knowledge of what reports are available in Office 365, as well as how you can return to your organization and build your own custom Office 365 Reporting dashboard.  
**You will learn:**  
• What reporting features are available out of the box in Office 365  
• Microsoft-provided reporting options for Office 365 you should be taking advantage of  
• Leveraging Microsoft cloud services to build your own reporting

**OSH01** Managing Office 365 Data on Mobile Devices  
*Intermediate*  
**BEN CURRY**  
**Thursday, December 6, 8:00 – 9:15am**  
With so much of our valuable information in Office 365 and people using their mobile devices to interact with that data, it’s more important than ever to protect your information once it leaves your tenant and lands on a phone or tablet. This session will walk you through how to ensure data is protected on mobile OneDrive, Word, Excel, SalesForce, SAP and more. You’ll learn how to plan for mobile device access, how to push configuration to mobile devices, and how to restrict data flow on mobile devices with Microsoft Intune.  
**You will learn:**  
• Understand the user and differences for mobile device management, mobile application management, and enterprise mobility management  
• Learn how to implement MDM profiles  
• Learn how to create and deploy compliance policies

**SharePoint, Office 365 and the Cloud**  
There’s no doubt the cloud will play a role in one or more SharePoint workloads in your future. The cloud, though, is appropriately nebulous. It’s online, in public forms like Office 365 and in private, dedicated offerings, including Microsoft Azure IaaS (virtual machines). It’s onsite, in clouds provided by third parties, and in your own, on-premises data centers. It’s crucial you understand the variety of options available in “the cloud,” so you can align your business needs with the best solution. You must understand how to architect SharePoint Server to scale efficiently to the cloud. As an IT pro, you must be able to configure SharePoint in the cloud. As a developer, you must adapt to the new APIs and models of development in Office 365 and Azure. And as a business user or leader, you must guide your organization in making the right choice for each workload. Join the elite presenters for invaluable, first-hand guidance and insight.

**OST01** Getting Started with Office 365 Groups, Team Sites and OneDrive for Business  
*Introductory / Intermediate*  
**DAN USHER**  
**Tuesday, December 4, 9:15 – 10:30am**  
Do you find yourself scratching your head and wondering when you should use an Office 365 Group and other times when to use a SharePoint Team Site?
OFFICE & SHAREPOINT LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

OST05 What’s New and Improved in SharePoint 2019
NEIL HODGKINSON AND AIMME TRIPLET
Tuesday, December 4, 2:45 – 4:00pm
What’s in store for the next version of SharePoint Server? Come to this session to learn how SharePoint online is helping to improve SharePoint on-premises. This session will help you prepare for the next version of SharePoint on-premises and detail the important changes that will help you users collaborate securely and effectively behind your firewall.

OST04 Fast Focus: 5 More Query Rules Every SharePoint Pro Should Know
Introductory / Intermediate
MATTHEW MCDERMOTT
Tuesday, December 4, 2:00 – 2:20pm
This fast paced session will introduce you to 5 more query rules that will help your end users find what they seek and maybe even put a smile on your face. No time for questions, only answers, just like search is supposed to be. (Matthew will take questions after the session!)
You will learn:
• How to create a Query Rule
• How to delight your users by anticipating their needs with a dynamic Search experience
• How to target search results to get your users to enjoy searching

OST07 Why You Need to Invest Into Search and How to Start this Journey?
Introductory
AGNES MOLNAR
Tuesday, December 4, 4:15 – 5:30pm
Many organizations don’t know what to expect from search, and therefore don’t invest into it at all. Many want to have “quick wins” instead of committing to a long-term strategy: they want to implement changes or enhancements that require minimal effort to drive business value in the short term. On the other hand, Search has to be the part of the company’s business strategy and roadmap, to maximize its long-term business value and benefits. In this session, Agnes will provide practical guidance on where to invest your time and resources. For long-term planning, she’ll provide an overview of industry trends and how to establish a value proposition and sell to the business. For your short-term benefits, she helps to set up an action plan which you can implement immediately.
You will learn:
• How to start and initiate a Search project in your organization
• How to set up a feasible action plan
• How to communicate Search milestones to your users, as well as stakeholders
• Industry trends and future of search

OSH04 PowerApps - Beyond the Basics
Introductory / Intermediate
PAUL SCHAEFLEIN
Thursday, December 6, 9:30 – 10:45am
Getting started with PowerApps is quite simple. But once you need to go beyond the wizard, things are not what you expect. But it is possible to build an offline-capable, responsive web application in PowerApps. This session
will take a basic CRUD application and extend it to handle common developer tasks.

You will learn how to:
• Understand PowerApps
• Interact with databases and back-end systems in PowerApps
• Create robust applications with PowerApps

OSH05 SharePoint Search and Taxonomy Better Together
Intermediate
MATTHEW MCDERMOTT
Thursday, December 6, 1:00 – 2:15pm
This demo filled session will review the latest advances in SharePoint and Office 365 Hybrid Search and Taxonomy. Matthew will demonstrate how to create powerful hybrid search experiences that include SharePoint, File Shares and BCS results both on premises and in Office 365. You will learn what is required for hybrid search and taxonomy configuration and what you should consider when crafting your hybrid search environment so that your end users can find what they seek no matter where it is stored or how it is accessed. Matthew will show how, through the use of a single unified source for your taxonomy, you can create efficiently tag and find content wherever it resides.

You will learn:
• How Hybrid Search can benefit your organization
• How to Configure Hybrid Taxonomy
• How to retrieve and separate search results in a Hybrid Environment
• How to configure the Search Center with Managed Metadata

OSH07 Automating SharePoint Online with Flow, PowerShell and Azure
Intermediate
BEN STEGINK
Thursday, December 6, 2:30 – 3:45pm
In this session, we’ll look at some real-world examples of how you can create PowerShell scripts for SharePoint Online in Azure Automation. We’ll start with what Azure Automation is and how to configure it for SharePoint Online. You’ll also learn some tips and tricks to using Azure Automation with SharePoint Online and Office 365. Once we have Azure Automation setup, we’ll walk through how you can trigger a PowerShell script using Microsoft Flow. To wrap up, we’ll walk through some real-world scenarios where you can tie all the services together to be used for provisioning SharePoint sites and OneDrive, as well as reporting on your SharePoint Online environment. When you leave this session, you won’t be able to wait to spin up your own environment and start writing scripts, creating Flow and automating every task possible in your own SharePoint Online environment!

You will learn:
• How to create an Azure Automation account you can use with SharePoint Online
• Incorporating Azure Automation runbooks into Microsoft Flow
• Real-world solutions where all the solutions are brought together

OST02 An Overview of the Office Development Platform
Introductory
BILL AYERS
Tuesday, December 4, 9:15 – 10:30am
Let’s learn about the ever-evolving Office 365 developer story. We’ll look at Microsoft Teams extensibility and the Microsoft Graph, Office Add-ins and relatively new features like Adaptive Cards, Excel Custom Functions and Dynamic Data for SPFx web parts. We’ll use a variety of tools, including Visual Studio, Visual Studio Code and open source tooling like Node.JS, Gulp and Yeoman. And we’ll see how we can apply the SharePoint Framework development model to build solutions on top of Teams. This will be a demo-packed overview of the Office platform, some decisions you need to make, and the tremendous development opportunities on offer.

You will learn:
• about the breadth of Office 365 development options
• Look at some of the recently released and preview capabilities
• Make decisions about the appropriate technology for each business requirement

**OST06 Developing SharePoint Framework Solutions for the Enterprise**  
*Intermediate*

ERIC SHUPPS  
Tuesday, December 4, 2:45 – 4:00pm

The SharePoint Framework (SPFx) provides a modern development platform for cloud-first solutions using popular web technologies. But integrating the new model in a structured enterprise development environment can be quite challenging. From toolset integration to application lifecycle maintenance, SPFx creates a number of challenges that can inhibit adoption. In this session you will learn how to overcome these challenges by using popular Microsoft tools such as Visual Studio and Team Foundation Services to deliver well-managed projects that plug easily into existing enterprise development patterns.

You will learn how to:
- Understand the challenges of client-side SharePoint development in enterprise environments
- Discover tools and techniques for building team-oriented SPFx solutions
- Implement automated lifecycle management for SPFx

**OST08 An Introduction to Development with the SharePoint Framework (SPFx)**  
*Intermediate*

ROB WINDSOR  
Tuesday, December 4, 4:15 – 5:30pm

Microsoft recently released a new page and web part model called the SharePoint Framework (SPFx). Microsoft used this new framework to build the Modern list and library user experiences that have been rolling out to SharePoint Online. As you’ll see in the session, developing for the SharePoint Framework using the developer preview is nothing like “traditional” SharePoint development. There’s no File | New Project in Visual Studio; instead we’ll be using tools like Node, Yeoman, Gulp and TypeScript. We’re not in Kansas anymore, Toto.

You will learn how to:
- Developer tooling used in SPFx projects
- The relationship between SPFx and the modern user experience
- APIs used to communicate with SharePoint and other web services

**OSW02 Introduction to Azure Web Applications for Office and SharePoint Developers**  
*Introductory*

ERIC SHUPPS  
Wednesday, December 5, 8:00 – 9:15am

The Azure platform offers many opportunities for developers to build robust, cloud-first applications that integrate directly with Office 365. Learn how to leverage the power of the Microsoft cloud infrastructure to create solutions with fully-integrated single sign-on and authorization. Discover tips and tricks for rapidly building, deploying and managing Azure solutions, along with techniques for leveraging the Office 365 APIs from your cloud applications.

You will learn how to:
- Understand the role of Azure AD applications in the SP/O365 development stack
- Design, implement and deploy Azure AD applications
- Discover the intricacies of Azure AD application deployment and how it differs from other SharePoint and Office applications

**OSW04 Enterprise JavaScript Development Patterns**  
*Intermediate*

ROB WINDSOR  
Wednesday, December 5, 9:30 – 10:45am

Much of the JavaScript sample code you see is written like script. It’s not structured or modular or layered. In other words, it doesn’t follow the generally accepted best practices we use when writing server-side code. In this session we’ll take one of these script-like examples and incrementally improve it, adding structure, modularity and layering. In the end you’ll find that, while there are differences, client-side coding does not have to feel foreign to server-side developers.

You will learn about:
- Keeping your functions and variables out of the global scope
- Adding structure to your JavaScript code
- Emulating object-oriented programming in JavaScript

**OSW06 Microsoft Graph: The Toolkit for Building Modern Business Solutions**  
*Intermediate*

BILL AYERS  
Wednesday, December 5, 2:00 – 3:15pm

Building applications against Office 365 and SharePoint is possible in a number of ways. You can use CSOM, the Office 365 REST endpoints, or the Microsoft Graph. What are the differences? When would you use one rather than the other? And what about the security issues and single sign-on? We’ll look at the capabilities of the Microsoft Graph and the way the information is structured and techniques for using it. The Microsoft Graph is the front-end not just for Office 365; it is rapidly becoming the API for the whole of Microsoft 365. This gives us an unprecedented opportunity: building bricks for identity, Insights, devices, SharePoint, OneDrive,
OFFICE & SHAREPOINT LIVE! SESSION DESCRIPTIONS BY TRACK (continued)

Exchange and all the other Office 365 services that just snap together to build sophisticated business solutions.

**You will learn:**
- The latest capabilities of the Microsoft Graph
- How to make decisions about the right API to use for each situation
- How to use APIs to solve business problems

**OSH02 Introduction to the SharePoint Developer PnP Core Libraries**
*Intermediate / Advanced*

**ROB WINDSOR**

**Thursday, December 6, 8:00 – 9:15am**

The SharePoint Developer Patterns and Practices (PnP) team have released two libraries focused on increasing developer productivity by reducing the amount of code needed when building remote applications. The SharePoint Developer PnP Core Component is a managed code library that extends and encapsulates commonly used Client Object Model operations. The SharePoint Developer PnP JavaScript Core Library is a JavaScript library that simplifies the use of the REST API. After a brief discussion of the SharePoint Developer Patterns and Practices project as a whole, we’ll move to demos showing how you get started using the SharePoint Developer PnP Core libraries.

**You will learn:**
- The role of SharePoint Developer PnP
- How to use the managed core library
- How to use the JavaScript core library

**OSH06 TypeScript for SharePoint Developers**

**ROB WINDSOR**

**Thursday, December 6, 1:00 – 2:15pm**

TypeScript is a relatively new language and toolset designed to make JavaScript coding feel more familiar to developers used to working with C# and Visual Basic. TypeScript is a typed superset of JavaScript that compiles to plain JavaScript. TypeScript adds language features like static types, classes, interfaces, and generics to enable great tooling and better structuring of large client-side applications. This session introduces TypeScript and shows how it can be used in SharePoint Apps and Solutions. Since all communication with SharePoint must be done asynchronously, the session also covers how to make asynchronous calls to the SharePoint REST API.

**OSH08 Reach for the Cloud: Extend your SharePoint Framework Solutions with the Power of Microsoft Graph**
*Advanced*

**BILL AYERS**

**Thursday, December 6, 2:30 – 3:45pm**

Microsoft Graph is the single REST API endpoint that gives us access to the whole of Microsoft 365 and the power of Search and AI. We’ll look at how Microsoft Graph works, and how we can use it to build intelligent applications that give us access to users’ mail, calendars, groups, tasks and intelligent insights as well as SharePoint. Then we’ll see how we can use the SharePoint Framework’s built-in MSGraphClient class to reach out to the Microsoft Graph and Office 365 data for the user. We’ll also look at the PnPJS library which gives us a fluent-style strongly-typed wrapper library for the SharePoint REST API and see how it is being extended to support Microsoft Graph.

**You will learn:**
- How to explore the Microsoft Graph REST API
- How to build SPFx Web Parts that use the Power of the Microsoft Graph
- Different development options and API choices
Office & SharePoint Live! Session Descriptions by Track (continued)

Office 365 Identity and Security

Identity: Who are you? Security: What do you have access to? Basic questions with sometimes complex answers. The sessions in this track seek to help you understand the challenges and solutions to common business issues related to identity management, synchronization, and security. Organizations need to be able to collaborate and share securely in the cloud. With ever more demanding requirements for auditing and compliance, the administrator’s job is becoming more complex. These sessions will help you to gain an understanding of the issues and fill your toolkit with practical advice and solutions to support a secure cloud environment.

OSW01 Managing and Configuring Office 365 Identity

Introductory

SCOTT HOAG

Wednesday, December 5, 8:00 – 9:15am

Office 365 Groups have become a foundational service in Office 365 and offer connectivity between Exchange Online, SharePoint Online, Yammer, Planner, Microsoft Teams and more. As groups continue to become more prevalent, you’ll want to make sure you have a plan to govern existing groups, provide guidance to users creating new groups, plan for external access to Groups, and even automate Group membership.

In this session, we’ll review how Groups are created and how they differ from Exchange Distribution Groups, how to manage Groups through both the Office 365 Admin Portal and PowerShell, and how you can leverage additional services in Office 365 such as Dynamic Security Groups to take your usage of Office 365 Groups to the next level.

You will learn:

• How to manage Groups in Office 365 through both the Admin Portal and through automation
• How to configure Office 365 tenancy to meet your organization’s needs and policies for Groups creation
• How Groups compare to existing workloads in Office 365

OSW03 Collaborating, Inside and Out - Building Secure Sharing Solutions

Introductory

BEN CURRY

Wednesday, December 5, 9:30 – 10:45am

There are many features in Office 365 that allow secured sharing using SharePoint Online and OneDrive. This session will show you the features that you’ll leverage to create modern extranets via SharePoint Online and ensuring security on OneDrive for Business. External sharing, Hub sites, Teams, guest access, and federation will all be discussed along with examples so you will know how to confidently create external sharing solutions.

You will learn:

• What features are available for sharing externally
• What NOT to do when sharing externally
• How to aggregate features to create a usable and secure extranet in Office 365

OSW07 Setting Up Directory Synchronization for Office 365

Introductory / Intermediate

DAN USHER

Wednesday, December 5, 4:00 – 5:15pm

Looking to reduce the number of post-it notes and stickies that your end users have? Seeking to automate your user creation processes for Office 365? This session will go through the basics of identity in Office 365 and demonstrate to how to set up and configure Office 365 with Azure Active Directory using the Azure Active Directory Connect tools.

You will learn about:

• Understanding Office 365 / Azure Identity
• Azure AD Connect configuration and setup
• Azure AD Premium capabilities

OSH03 Securing Office 365 and SharePoint with Azure Active Directory

Intermediate

SCOTT HOAG

Thursday, December 6, 9:30 – 10:45am

Securing Office 365 requires knowing more than your way around the Admin Center. With Office 365’s heavy dependency on Azure Active Directory for authentication (and in some cases authorization) to Office 365 workloads, it is critical that you understand how users access your environment and how you can control that access.

In this session, we’ll explore how you can secure your Office 365 tenant with Azure Active Directory, conditional access policies, and more.

You will learn how to:

• Understand Azure Active Directory
• Understand Conditional Access polices
• Understand AAD Premium features
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OFFICE & SHAREPOINT LIVE! CONFERENCE SPEAKERS

Bill Ayers
Consultant Developer & Solution Architect

Ben Curry
Managing Partner, Summit 7

Scott Hoag
Principal Cloud Solutions Architect, Opsgility

Neil Hodgkinson
Senior Program Manager, O365 CXP Team, Microsoft

Matthew McDermott
Founder and Director, Aptillon, Inc.
Office & SharePoint Live! Conference Chair

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Ben Stegink
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Eric Shupps
Founder & President, BinaryWave

Paul Schaeeflein
Enterprise Architect

Ben Windsor
Senior Consultant and Trainer

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Modern Apps LIVE!
MOBILE, CROSS-DEVICE & CLOUD DEVELOPMENT

Delivering Modern Apps

Presented in Partnership with:
Magenic
AGENDA AT-A-GLANCE

What sets Modern Apps Live! apart is the **singular topic focus**; sessions build on each other as the conference progresses, leaving you with a holistic understanding of modern applications, which means a complete picture of what goes into building a modern app for web, iOS, Android, and Windows 10 devices that all interact with state-of-the-art backend services running in public or private clouds.

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<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>8:30 AM</td>
<td>Modern Apps Live! Pre-Conference Workshop: Monday, December 3, 2018</td>
<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>8:30 AM</td>
<td>5:30 PM</td>
<td>MAM01 Workshop: Application Cloud Modernization and Migration - Stuart Williams</td>
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<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td>Dine-A-Round Dinner @ Universal CityWalk - 6:30pm - Meet at Conference Registration Desk to walk over with the group</td>
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<tr>
<td>7:00 AM</td>
<td>8:00 AM</td>
<td>Modern Apps Live! Day 1: Tuesday, December 4, 2018</td>
<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td>MODERN APPS LIVE! &amp; VISUAL STUDIO LIVE! KEYNOTE: .NET Everywhere and for Everyone - James Montemagno, Principal Program Manager - Mobile Developer Tools, Microsoft</td>
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</tr>
<tr>
<td>9:15 AM</td>
<td>10:30 AM</td>
<td>MAT01 Distributed Architecture: Microservices, N-Tier, Messaging, and More - Rockford Lhotka</td>
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<tr>
<td>10:30 AM</td>
<td>11:00 AM</td>
<td>Networking Break - Visit the EXPO - Pacifica 7</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>LIVE! 360 KEYNOTE: To Be Announced - Pacifica 6</td>
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<td>12:00 PM</td>
<td>12:45 PM</td>
<td>Lunch - Visit the EXPO</td>
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<td>12:45 PM</td>
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<td>Dessert Break - Visit the EXPO</td>
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<tr>
<td>1:30 PM</td>
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<td>MAT02 Fast Focus: Exploring Hybrid Web Development Options - Allen Conway</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td>MAT03 Fast Focus: What is this GDPR Thing? - Michael Lester</td>
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<tr>
<td>2:20 PM</td>
<td>2:45 PM</td>
<td>Networking Break - Visit the EXPO - Pacifica 7</td>
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<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td>MAT04 Principles and Patterns for Resilient Code - Jason Bock</td>
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<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td>MAT05 Security with Speed - Michael Lester</td>
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<td>5:30 PM</td>
<td>7:30 PM</td>
<td>Exhibitor Reception - Pacifica 7</td>
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Sessions and speakers subject to change. Continued next page
## AGENDA AT-A-GLANCE (continued)

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<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
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<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>MAW01</strong> Application Cloud Migrations: Lessons Learned from the Field - Stuart Williams</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>MAW02</strong> The Language of UX: Effectively Communicating Your Experience Across Multiple Platforms - Jim Barret</td>
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<tr>
<td>10:45 AM</td>
<td>11:30 AM</td>
<td>Networking Break • Visit the EXPO - Pacifica 7</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>12:30 PM</td>
<td><strong>LIVE! 360 KEYNOTE: Enterprise Transformation (And You Can Too)</strong> Donovan Brown, Principal DevOps Manager, Cloud Developer Advocacy Team, Microsoft</td>
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<tr>
<td>12:30 PM</td>
<td>1:30 PM</td>
<td>Birds-of-a-Feather Lunch</td>
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<td>1:30 PM</td>
<td>2:00 PM</td>
<td>Dessert Break • Visit the EXPO</td>
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<tr>
<td>2:00 PM</td>
<td>3:15 PM</td>
<td><strong>MAW03</strong> Next-Gen Enterprise User Experiences: Voice, AR, Bots - Kevin Ford</td>
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<tr>
<td>3:15 PM</td>
<td>4:00 PM</td>
<td>Networking Break • Visit the EXPO • Expo Raffle @ 3:30 p.m. - Pacifica 7</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td><strong>MAW04</strong> Web Client UI: Frameworks, Testing, and Design - Allen Conway</td>
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<td>7:30 PM</td>
<td>9:00 PM</td>
<td>Live! 360 Dessert Luau - Wantilan Pavilion</td>
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<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>MAH01</strong> Smart Mobile Clients: Which Tech is Right for Me? - Brent Edwards</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>MAH02</strong> Code First vs. Database First: Where are You on the Spectrum, and Why? - Tony Sellars</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td><strong>MODERN APPS LIVE! PANEL DISCUSSION: Open Q&amp;A on Modern App Architecture, Design, and Implementation</strong> Rockford Lhotka (moderator), Allen Conway, Scott Diehl, Brent Edwards, &amp; Kevin Ford</td>
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<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Lunch on the Lanai - Lanai / Pacifica 7</td>
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<tr>
<td>1:00 PM</td>
<td>2:15 PM</td>
<td><strong>MAH03</strong> Machine Learning: Client vs. Server Models - Kevin Ford</td>
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<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td><strong>MAH04</strong> Data Visualization: Where Does Tech End and UX Begin? - Scott Diehl</td>
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<tr>
<td>4:00 PM</td>
<td>5:00 PM</td>
<td>Next? Live! 360 Networking Event Heidi Araya, Andrew Brust, Jeremy Clark, Ben Curry, Benjamin Day, Peter De Tender, Brent Edwards, Kevin Ford, Grant Fritchey, Esteban Garcia, Seth Juarez, Dave Kawula, Cristal Kawula, Sami Laiho, Thomas LaRock, Vishwas Lele, Rockford Lhotka, Karen Lopez, Matthew McDermott, Brian Randell, Paul Schaefflein, Jen Underwood, Rob Windsor</td>
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<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>MAF01</strong> Modern App User Experiences: Mobile, Web, AR, Voice, and Bots - Allen Conway, Brent Edwards, &amp; Kevin Ford</td>
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Sessions and speakers subject to change.
MODERN APPS LIVE! SESSION DESCRIPTIONS

**Modern App Development**
Modern app development brings a wide array of challenges to software developers, designers, managers, architects, team leaders, and product owners. These apps often target multiple client platforms and technologies, including mobile, voice, augmented reality, and traditional PC form factors. They rely on state-of-the-art, server-side platform capabilities in private and public clouds. Users expect professional quality and performance in their business apps, and they expect them to be delivered on time. That means you need to apply agile application lifecycle processes and tools effectively, along with embedded developer and acceptance testing, and a solid DevOps capability.

This single-track conference consists of sessions that provide you with an end-to-end narrative covering all aspects of building modern apps using today’s technologies. You’ll learn how to manage a project lifecycle when that project includes Azure cloud services supporting client devices that enable mobile, web, voice, AR, laptop, and desktop experiences.

In this workshop, we will talk about:
- What kinds of applications, systems, and components do and do not migrate well
- Defining what makes a successful migration: metrics, goals, and risks
- Common patterns and techniques
- Dealing with the inevitable need for hybrid scenarios

The workshop will feature lots of demos, real-world case studies, and will focus on the practical mechanics of moving all or part of a portfolio to the cloud, whether it be in the data center, one of the public clouds using IaaS, PaaS, or SaaS, or on-to one of the popular container systems such as Kubernetes or Pivotal Cloud Foundry, or some mix of those.

There is a broad continuum of what it means to be cloud-ready, from just functioning in a cloud to being able to leverage the cloud’s advantages and architecture—e.g., being cloud native.

Among other things, you will learn:
- The 12-Factor app and other considerations for application migration and modernization
- Alternatives and techniques for modernization and migration (M+M) along with considerations for each
- How to tell if an application is ill-suited for the cloud

In this session you’ll learn how to describe and think about n-tier services, synchronous microservices, and asynchronous message-based microservices in a way that’ll allow you to create modern applications with minimal technical debt.

**MAT01 Distributed Architecture: Microservices, N-Tier, Messaging, and More**

*Introductory*

**ROCKFORD LHOTKA**

Tuesday, December 4, 9:15 – 10:30am

Modern applications often leverage a wide array of architectural concepts, bringing them together to address complex business problems in a comprehensive manner. Though we all use services, most apps leverage a combination of n-tier services and perhaps some message-based microservices, but we rarely differentiate between them. Without a clear understanding of the differences, it is very easy to create a big mess of disorganized and unmaintainable services—a modern “big ball of string” anti-pattern.

In this session you’ll learn how to leverage the Web stack to deliver mobile/native applications.
MODERN APPS LIVE! SESSION DESCRIPTIONS (continued)

**MAT03**  Fast Focus: What is this GDPR Thing?
Introductory
MICHAEL LESTER
Tuesday, December 4, 2:00 – 2:20pm
The GDP-What? Seriously...what is it? Does it even apply to you, or your client? You’ve seen the acronym, but what does it REALLY mean to you? Join Michael for a no-nonsense, no-B.S., no fluff, Spark-Notes/Cliff-notes brief on the GDPR, what it is, who it affects, what you need to know, and why businesses are so nervous about it.

You will learn:
- What the GDPR is and what it is not
- Understand to whom the GDPR applies
- What is important, what isn’t, what will get you in trouble, and what will keep you safe

**MAT04**  Principles and Patterns for Resilient Code
Intermediate
JASON BOCK
Tuesday, December 4, 2:45 – 4:00pm
Writing code is not a trivial endeavor. No matter where it runs and the conditions that exist in that environment, its users must be delighted with the experience of running a stable application. In this session, we’ll cover a number of concepts, patterns, and tools that you can use to improve your code. We’ll discuss unit testing, resiliency patterns, logging strategies, and so much more.

**MAT05**  Security with Speed
Intermediate
MICHAEL LESTER
Tuesday, December 4, 4:15 – 5:30pm
Your client/boss/team wants it fast, but they want it secure. Can you do both? Yes, you can! Join Michael as he examines how you can incorporate security into the Agile software development lifecycle (SDLC). It’s not as hard as you think, and it will make you look like a rock star!

You will learn:
- About the need for security by design, especially when using Agile or Agile-like SDLCs
- Become familiar with the security with speed framework
- How to articulate the need for, use of, cost of, and results for incorporating security into your SDLC

**MAW01**  Application Cloud Migrations: Lessons Learned from the Field
Intermediate
STUART WILLIAMS
Wednesday, December 5, 8:00 – 9:15am
The team has been involved in migrating many customers applications and systems to the cloud (data center, one of the public clouds, or on-to one of the popular container systems such as Kubernetes or Pivotal Cloud Foundry). Along the way we have noticed certain patterns and anti-patterns, and learned some hard lessons about what should work, what does not work, and what just won’t work, and pass them on.

This session focuses on real-world scenarios and problems teams are likely to encounter and talks about how they were handled, and what ultimately turned out to be successful.

You will learn:
- Patterns and anti-patterns for migration and modernization

**MAW02**  The Language of UX: Effectively Communicating Your Experience Across Multiple Platforms
Introductory / Intermediate
JIM BARRET
Wednesday, December 5, 9:30 – 10:45am
Building a solid user experience for your application is key to engaging new users and maintaining current ones. In the absence of a dedicated designer, some projects run the risk of being programmatically sound, but lacking in an experience that is relatable and optimized to the platform. This can cause user adoption to decrease, and overall dissatisfaction with the product. Luckily, the major platforms (Apple, Android, and Windows) have developed standards and practices for UI that you can apply to make sure you are giving your users the best experience possible. A small section of this presentation will also be dedicated to conversational UI, for use in projects like AI and chat bots.

In this session, we will be taking a look at the three most popular design patterns: Material Design for Android, Apple’s Design Guidelines for iOS, and UWP (Universal Windows Platform).

You will learn:
- The biggest differences in each platforms approach to common UI elements (navigation, headers, transitions)
- How to plan your user experience with the use of prototyping tools like Sketch, Balsamiq, or Adobe XD
- About built-in shortcuts and add-ons for popular IDEs that will save you development time by automatically adhering to common design patterns
MODERN APPS LIVE! SESSION DESCRIPTIONS (continued)

**MAW03 Next-Gen Enterprise User Experiences: Voice, AR, Bots**
*Intermediate*
KEVIN FORD
Wednesday, December 5, 2:00 – 3:15pm
The face of mobile devices have been changing, and along with that comes new ways to interact with them. In this session, we will look at alternate ways of interacting with mobile devices; including voice interaction, augmented reality, and bots. We will explore how you can create these next generation interfaces right in C# using Xamarin, Azure and SDKs built right into iOS and Android. Find out why developers and businesses are swiping right over some of these new technologies.

You will learn:
• What capabilities Android, iOS and Azure provide for client-side augmented reality, bots and voice recognition
• How you can use Xamarin to implement these technologies
• Why you may decide to use one of these technologies in an application

**MAW04 Web Client UI: Frameworks, Testing, and Design**
*Intermediate*
ALLEN CONWAY
Wednesday, December 5, 4:00 – 5:15pm
Modern Web client apps are often described as “responsive Web,” “Single Page Applications (SPAs),” or “JS Applications.” These apps built with HTML5, CSS3, and JavaScript (or TypeScript) are popular both for their lightweight and high performance nature. The dizzying array of choices to be made and feverish pace at which the front-end technology moves can make it difficult to keep up. We’ll discuss Modern Web applications framework options, their viability, advantages/disadvantages and comparison to traditional server-side Web applications. We’ll also look at overall design and architectural decisions, as well as the testing to support our front-end code. In this session, you’ll learn about which options are available and decisions that need to be made when it comes to building modern Web client UI applications.

You will learn:
• About the advantages and frameworks used for creating a single page application for modern Web application development
• About overall design and architectural decisions that should be considered when creating a modern Web application
• About testing tools and practices for front-end development

**MAH01 Smart Mobile Clients: Which Tech Is Right for Me?**
*Introductory*
BRENT EDWARDS
Thursday, December 6, 8:00 – 9:15am
Keeping up with mobile app development is an ongoing task. Whether you’re an experienced mobile developer or just getting started, it’s a good idea to regularly survey the technology landscape to make sure you are using the best tool for the job. In this session, we’ll cover the pros and cons of some of the most popular mobile development technologies. When the time comes for you to decide on a mobile development technology, you’ll be able to make a more informed decision.

You will learn:
• An overview of the popular mobile development technologies
• The pros and cons of each
• How to determine which technology is best for you

**MAH02 Code-First vs. Database-First: Where Are You on the Spectrum, and Why?**
*Introductory / Intermediate*
TONY SELLARS
Thursday, December 6, 9:30 – 10:45am
Often, the question of code-first or database-first is answered in an all or nothing fashion. It may also be based on either what has been done before or the one you are most comfortable with. In this session we will navigate through a number of scenarios that highlight strengths and challenges to consider. Not all applications, environments, teams, or data are created the same.

You will learn:
• What you get out of the box with each approach
• Tradeoffs and problem areas
• Patterns and practices to guide implementation

**MAH03 Machine Learning: Client vs. Server Models**
*Intermediate*
KEVIN FORD
Thursday, December 6, 1:00 – 2:15pm
Machine learning has been becoming increasingly popular, both in server-side offerings like Microsoft’s Azure Machine Learning to IBM’s Watson, and client-side offerings like Apple’s CoreML and Google’s TensorFlow lite. This session will explore the strengths and weaknesses of the client-side and server-side offerings and when you may decide to use one over the other. We will look at how we can put some simple models together using data that is freely available to us.

You will learn:
• What are the capabilities of client-side and server-side bots
• When you may use one over the other
MODERN APPS LIVE! SESSION DESCRIPTIONS (continued)

• How you can use data in your organization or freely available data in conjunction with machine learning inside your applications

MAH04  Data Visualization: Where Does Tech End and UX Begin?

Intermediate
SCOTT DIEHL
Thursday, December 6, 2:30 – 3:45pm
As modern organizations increasingly decide to expose internal data to external customers and partners – often with the explicit goal of “monetizing” the work – industry interest has arisen in providing engaging dashboard and report experiences worthy of a consumer’s time (and potentially $$).

Enter the world of embedded data visualization, where the data developer, application developer, and UX designer work together to provide a seamless application experience that doesn’t expect the user to employ multiple external tools – such as Excel, or a report management interface – to conduct data analysis and gain business insight.

In this session, we will be using Power BI to illustrate:
• The hazy line between designing data visualizations and developing the necessary data and analytic capabilities (and infrastructure) required to support them
• The trade-offs between “out-of-the-box” reporting applications (portals and mobile apps) and more customized embedded experiences
• The issues that application developers, data developers and UX designers need to consider when integrating or embedding data visualizations into custom applications

MAF01  Modern App User Experiences: Mobile, Web, AR, Voice, and Bots

Intermediate
ALLEN CONWAY, BREN T EDWARDS, & KEVIN FORD
Friday, December 7, 8:00am – 5:00pm
The Modern Apps Live! conference content so far has focused a lot on the tradeoffs and choices involved in designing and building a modern app using various technologies. Here we will provide a low-level insight into the technology behind those discussions and the way they are used to implement in everyday practical modern application development. This is a deep dive into the use of Angular/TypeScript/Jasmine for the Web, native/Xamarin development for mobile, and conversational UIs/machine learning on Android and iOS devices, as well as Augmented reality, and voice input.

You will learn:
• About building a modern Web application using a single page application
• The differences between native and Xamarin modern mobile application development
• About AR, voice, and bot modern application development

“THE IDEA OF HAVING A WORKING APP FOR THE MODERN APPS TRACK IS EXCELLENT.”
- Matt Porter, RPS, Inc.
MODERN APPS LIVE!
CONFERENCE CHAIR

CONFERENCE CHAIR
Rockford Lhotka
CTO, Magenic Technologies
Modern Apps Live! Conference Chair

MODERN APPS LIVE! CONFERENCE SPEAKERS

Jim Barrett
Senior UX Designer,
Magenic Technologies

Michael Lester
Chief Information Security Officer,
Magenic Technologies

Jason Bock
Practice Lead,
Magenic Technologies

Rockford Lhotka
CTO, Magenic Technologies
Modern Apps Live! Conference Chair

Allen Conway
Senior Consultant,
Magenic Technologies

Tony Sellars
Data Platform and BI Consultant,
Magenic Technologies

Scott Diehl
Practice Lead for Data & Analytics,
Magenic Technologies

Stuart Williams
Principal Architect and Practice Lead,
Magenic Technologies

Brent Edwards
Principal Lead Consultant,
Magenic Technologies

Kevin Ford
Mobile Practice Lead,
Magenic Technologies

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Founded in 1975, Microsoft (Nasdaq “MSFT”) is the worldwide leader in software, services and Internet technologies for personal and business computing. Microsoft offers a wide range of innovative products and services designed to help individuals and organizations realize their full potential.

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Magenic

Founded in 1995 by the same technical minds that still run the company, Magenic is the leading modern application development firm that can address your organization’s most complex development challenges and deliver software results. As a full-service, professional services partner that has local consultants and a proven process, Magenic will get your projects to market sooner by using premier technical talent in a flexible way that best suits your organization.

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Goverlan is a leading provider of remote IT support software for system admins, support technicians and IT departments. Goverlan is ranked Top 3 as an Enterprise IT Management solution as per G2Crowd.

Goverlan Reach™ provides real-time and behind-the-scenes IT support, user management, software and patch deployment, endpoint monitoring, and streamlined IT process automation. Goverlan MDM provides secure corporate and BYOD mobile device management features such as remote support, device monitoring, remote lock/wipe, application and security policy distribution, self-service portal and more. Visit us and discover how our users solve 80% of their support issues without end-user involvement.

https://www.goverlan.com

Progress

Progress (NASDAQ: PRGS) offers the leading platform for developing and deploying mission-critical business applications. The creator of the award-winning Telerik .NET and Kendo UI JavaScript user interface components/controls, reporting solutions and productivity tools, Progress offers all the tools developers need to build high-performant modern apps with outstanding UI. Learn more about the Progress developer tools at:

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GrapeCity’s family of products provides developers, designers, and architects with the ultimate collection of easy-to-use tools for building sleek, high-performing, feature-complete applications. With over 30 years of experience, our experts anticipate the needs of the market and offer the industry’s best support. A diverse product line delivers grids, UI, reporting, JavaScript, spreadsheet, and mobile controls for the enterprise and beyond, and includes ComponentOne Studio, ActiveReports, Wijmo Enterprise, Spread, and the newly released GrapeCity Documents API. GrapeCity is an award-winning Microsoft Gold Certified Partner and a premier Visual Studio Partner Program member. For more information visit www.grapecity.com

SolarWinds provides powerful and affordable IT management software for IT professionals, including Database Performance Analyzer, a database performance solution for DBAs, IT managers, and database developers, for both physical and virtual server environments. DPA helps eliminate bottlenecks, speed problem resolution, and reduce the cost of operations for Oracle, SQL Server, MySQL, DB2 and SAP ASE databases. Visit http://www.solarwinds.com for more information.

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.NET Developers Association
The .NET Developers Association is an Eastside community oriented group aimed at furthering the education of .NET developers. www.meetup.com/NET-Developers-Association/

UserGroup.TV
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Columbus OH
Columbus OH has a vibrant and diverse developer community. Our UG welcomes developers across all platforms or language boundaries – we love technology above anything else. Let’s talk how we build modern apps – architecture, tooling, design, security and human ingenuity. We invite awesome speakers and geek out over technology...and some pizza. https://www.meetup.com/columbusappdevug/

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HOTEL INFORMATION

THE LOEWS ROYAL PACIFIC RESORT CONFERENCE CENTER is located in the middle of two of Orlando’s best Universal Orlando resorts, Loews Royal Pacific Resort and Loews Sapphire Falls Resort. Both resorts are just a short walk or water taxi ride away from Universal’s two amazing theme parks, Universal Studios Florida® and Universal’s Islands of Adventure®*, and Universal CityWalk®. These well-situated properties make visiting this sunny locale easy.

**COMBINE BUSINESS AND PLEASURE! MAKE YOUR TIME AT LIVE! 360 ORLANDO EVEN BETTER** by bringing the family and staying at one of the Loews Hotels at Universal Orlando**, home to all Visual Studio Live!, SQL Server Live!, TechMentor, Artificial Intelligence Live!, Office & SharePoint Live!, and Modern Apps Live! Orlando sessions and activities.

**LOEWS ROYAL PACIFIC RESORT**
6300 Hollywood Way
Orlando, FL 32819

Special attendee rate: $159.00*
Book by: November 9, 2018
Reservations: 866.360.7395

Rooms at Loews Royal Pacific Resort in the Live! 360 Room Block also include the following:
• Complimentary in-room internet connectivity**
• Complimentary use of The Gymnasium, fitness center
• Exclusive Universal Orlando theme park benefits - Click here for more details.

**LOEWS SAPPHIRE FALLS RESORT**
6601 Adventure Way
Orlando, FL 32819

Special attendee rate: $159.00*
Book by: November 9, 2018
Reservations: 866.360.7395

Rooms at Loews Sapphire Falls Resort in the Live! 360 Room Block also include the following:
• Complimentary in-room internet connectivity**
• Complimentary use of Kalina Health & Fitness
• Exclusive Universal Orlando theme park benefits - Click here for more details.

* Rooms are subject to availability and applicable sales and local taxes, so book your accommodations today.
** Premium wireless access is complimentary for up to 4 devices per room for a 24-hour period 1pm to 1pm.

HOTEL PACKAGE
If you add the hotel Hotel Package when registering, a hotel room at either Loews Royal Pacific Resort or Loews Sapphire Falls Resort will be reserved for you. The conference center where the event is being held is located between the hotels and both hotels are connected to the conference center.

For the most up-to-date hotel options, visit the LIVE! 360 TRAVEL PAGE.
VENUE & TRAVEL (continued)

TRAVEL

CAR RENTAL DISCOUNTS
Avis Rent-a-Car is offering a discount on car rental for Live! 360 Orlando attendees. To receive the discounted rates, call Avis at 800.331.1600 and use the Avis Worldwide Discount (AWD) number DO05872, or click here to make your reservation online.

AIRPORT TRANSPORTATION (Orlando International Airport)
Loews Hotels at Universal Orlando do not provide airport transportation, but there are several options:

Ride Sharing: All Ride Sharing Providers - such as Uber, Lyft and Wingz - can pick up on the Arrivals Level (Level 2) at Orlando Airport.

Mears Transportation: 800.759.5219
Mears provides convenient and affordable transportation between the Orlando International Airport and both Loews Royal Pacific Resort and Loews Sapphire Falls Resort. One way fares start at $18. This is a shuttle service that will have other stops along the way. Mears can also assist with sedan reservations or advance taxi reservations.

Taxi: One way fares from Orlando International Airport (MCO) average $45-$50
Taxi can also assist with sedan reservations or advance taxi service that will have other stops along the way. Mears, Loews Royal Pacific Resort entrance is 1/3 mile on the right.

From Downtown Orlando (I-4 West):
• Take I-4 West to Exit 74B (Universal Studios) and get in the right lane
• At traffic light, turn right onto Hollywood Way
• Loews Royal Pacific Resort entrance is second on the right

From Orlando International Airport:
• Take the North exit out the airport onto Beachline Expressway (SR528) West (International Drive, Convention Center)
• Continue on Beachline and take I-4 East
• Take Exit 75A (Universal Studios) and get in the left lane
• At traffic light, turn left on Universal Blvd.
• Turn left at next traffic light (Hollywood Way)
• Loews Royal Pacific Resort entrance is 1/3 mile on your left

*SR528 is a toll road.

From I-95 South:
• Take I-95 South to Exit 260B (I-4 West towards Orlando)
• Take I-4 West to Exit 74B (Universal Studios) and get in the right lane
• At the traffic light, turn right onto Hollywood Way
• Loews Royal Pacific Resort entrance is second on the right

From I-95 North:
• Take I-95 North to Exit 205 (SR528 - Beachline Expressway) heading West
• Continue on Beachline and take I-4 East
• Take Exit 75A (Universal Studios) and get in the left lane
• Turn left on Universal Blvd.
• Turn left at second traffic light (Hollywood Way)
• Loews Royal Pacific Resort entrance is 1/3 mile on your left

*SR528 is a toll road.

PARKING
Loews Royal Pacific Resort Self or valet parking for Live! 360 attendees:
• Self-parking is $12.00* per day
• Valet parking is $19.00* per day

Loews Sapphire Falls Resort Self or valet parking for Live! 360 attendees:
• Self-parking is $12.00* per day
• Valet parking is $19.00* per day

*Rates shown are discounted for Live! 360 attendees and subject to change without prior notice.

UNIVERSAL ORLANDO® THEME PARK TICKET INFORMATION
Looking to relax and have some fun after a long day of learning? When you stay with us at the Loews Royal Pacific Hotel, you’ll receive some great perks if you plan to head over to Universal Orlando® Theme Park - be sure to take advantage of everything our hotels have to offer!

THEME PARK TICKETS
Click here to purchase Universal Orlando® theme park tickets.

After 2pm Convention Tickets
Once you arrive and check in for Live! 360, you can show your conference badge at the Universal Orlando ticket desk in the lobby of either conference hotel and purchase after 2:00pm discounted tickets.

Note: you need a Universal Orlando® theme park “Park-to-Park” pass to ride the Hogwartss™Express train between the two parks to experience all of the Harry Potter™ magic and excitement.

DISCOVER ORLANDO AND THE UNIVERSAL ORLANDO AREAS
Visit www.orlandoinfo.com for information on places to visit and things to do in the Orlando area. You can also visit www.universalorlando.com/convention for more information on Universal Orlando® Resort.

FOR MORE TRAVEL INFORMATION, VISIT: live360events.com/travel
Registration Packages

SIGN UP for the conference package that best meets your schedule and needs!
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<th>LIVE! 360 6-DAY CONFERENCE PACKAGE (5-DAY + HANDS-ON LAB)</th>
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<td>Your six day all-access pass to every keynote, session, workshop, hands-on lab, and event December 2-7, 2018 for all six co-located conferences.</td>
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ADD THE HOTEL PACKAGE

The Live! 360 6-Day Hotel Package includes 6 nights at the Royal Pacific Resort OR Sapphire Falls Resort (room and tax only) – checking in Saturday, December 1 and checking out Friday, December 7.

6-DAY HOTEL PACKAGE: $1,150
REGISTRATION PACKAGES (continued)

LIVE! 360 5-DAY CONFERENCE PACKAGE

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5-DAY HOTEL PACKAGE: $950
**REGISTRATION PACKAGES** (continued)

**LIVE! 360 3-DAY CONFERENCE PACKAGE**

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**ADD THE HOTEL PACKAGE**

The Live! 360 3-Day Hotel Package includes 3 nights at the Royal Pacific Resort OR Sapphire Falls Resort (room and tax only) – checking in Monday, December 3 and checking out Friday, December 7.

**3-DAY HOTEL PACKAGE: $775**

**SIGNING UP 3 OR MORE?**
Group Discounts are available! Turn to page 104 for pricing details.

**ARE YOU A VISUAL STUDIO LIVE! OR LIVE! 360 ALUMNUS?**
Alumni discounts are available! Turn to page 105 for pricing details.
**REGISTRATION PACKAGES** (continued)

**FULL DAY HANDS-ON LAB PASS**

The Live! 360 Orlando Hands-on Lab Pass grants you access to one full-day hands-on lab on Sunday, December 2, 2018.

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**WORKSHOP PASS (1 DAY)**

The Live! 360 Workshop Pass grants you access to one full-day workshop at Live! 360 Orlando on either Monday, December 3 OR Friday, December 7, 2018.

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**SIGNING UP 3 OR MORE?**

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**ARE YOU A VISUAL STUDIO LIVE! OR LIVE! 360 ALUMNUS?**

Alumni discounts are available! Turn to page 105 for pricing details.
GROUP DISCOUNTS are available for companies who bring 3 or more people. The Group discount is only available for the 6-Day and 5-Day Conference Packages.

For questions regarding group registration or for more information please call 972.687.6719.
WE LOVE OUR ALUMNI AND HAVE SPECIAL RATES JUST FOR YOU!

### LIVE! 360 ALUMNI 6-DAY PACKAGE (5-DAY + HANDS-ON LAB)

Your six day all-access pass to every keynote, session, workshop, hands-on lab, and event December 2-7, 2018 for all six co-located conferences.

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**6-DAY HOTEL PACKAGE: $1,150**
REGISTRATION PACKAGES (continued)

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<td>Your three day all-access pass to every keynote, session and event December 4-6, 2017 for all six co-located conferences.</td>
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3-DAY HOTEL PACKAGE: $775