DEVELOPER TRAINING CONFERENCE HEADS EAST TO BOSTON

SPARK YOUR CODE REVOLUTION IN HISTORIC BOSTON

June 9-13, 2019 | Hyatt Regency Cambridge

IN-DEPTH TECHNICAL CONTENT ON:

- AI, Data and Machine Learning
- Cloud, Containers and Microservices
- Delivery and Deployment
- Developing New Experiences
- DevOps in the Spotlight
- Full Stack Web Development
- .NET Core and More

vslive.com/boston
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A MESSAGE FROM THE CONFERENCE CO-CHAIRS

SUMMER IS THE SEASON OF FUN and the sun! With all the crazy early 2019 weather, many of us are looking for warmer weather and blue skies. When it comes to technology, you might quickly associate sky with clouds and that brings us to the ever-changing landscape of modern, cloud-based deployment where you can move traditional workloads from Windows servers to virtual machines and PaaS solutions. With all the changes for developers using just about any language including .NET and Java, we see serverless and containers becoming central to many solutions. Never to be left out, the client stack continues to surprise with native frameworks like Windows Forms and WPF getting new life; JavaScript frameworks continuing to impress with their power, and the dynamic, new world that’s being opened up with C#, Blazor, and WebAssembly.

We’re Andrew Brust, Rockford Lhotka, and Brian Randell, and as Conference Co-Chairs for Visual Studio Live! Boston, we’d like to personally invite you to join us this June at the Hyatt Regency Cambridge just outside Boston, MA. It is a must-attend event to keep up with all the exciting changes in technology. As veterans of the show and longtime speakers, we may be biased, but we firmly believe that an in-person experience, where you get to have two-way conversations about the latest tools and technology, with some of the finest expert speakers in the business—and with the chance to network with your peers—continues to deliver the highest level of value.

Visual Studio Live! in Boston gives you more of what you’ve asked for: pre-conference hands-on-labs, pre-conference workshops, brilliant keynotes, and more than 50 breakout sessions, covering a wide array of development technologies for everyone. From security to databases to the latest Web and mobile technologies, to Docker & Kubernetes, and DevOps, we’ve got you covered. Our speakers will present on Machine Learning, Bots, and enterprise software solutions in-depth, based on their experience with Windows, macOS, Linux, and mobile platforms.

We have picked every Workshop, Hands-On Lab and session with the goal of transferring knowledge to you, so you can be a better developer and help your organization succeed in this ever-changing world. You’ll find coverage on .NET Core, C# 8, mobile development with Xamarin, container technologies and Power BI. If the Web is more your style, you’ll find coverage of TypeScript and Angular on the client as well as ASP.NET Core on the server. Feeling confused about .NET Core? We’ve got sessions to clear it up. Want to improve the quality of your software? We’ve got sessions on unit testing and continuous delivery. Mystified as to how you can bring DevOps to your organization? Our speakers will answer your questions with practical guidance on DevOps for the cloud, the data center and more.

Our Hands-On Lab content provides coverage of Cross-Platform Mobile Development with Xamarin and Xamarin.Forms, and Building a Modern DevOps Pipeline on Microsoft Azure. If that’s not what you’re after, we’ve got great Workshops on Dependency Injection, SQL Server for Developers, and Cross-Platform C# (including Kubernetes and WebAssembly). Our sessions, Hands-On Labs and Workshops drill deep into the subjects you need to master and the fundamentals that are always important.

Our industry continues the march toward the future. To keep up, you need to absorb rapidly and adapt. When you compare Internet-based content to a live experience, where you get to ask questions in real-time and engage directly with the experts and your peers, we’re sure you’ll agree with us you can go deeper, more quickly and get to the heart of your questions. Find a way to get to Visual Studio Live! Boston and get the tools to help yourself grow.

Come celebrate 26 years of great learning and make your own memories with us! We hope to see you there!

VISUAL STUDIO LIVE! CONFERENCE CO-CHAIRS

Andrew Brust
Founder & CEO, Blue Badge Insights

Rockford Lhotka
CTO, Magenic

Brian A. Randell
Partner, MCW Technologies
10 ENCHANCE YOUR LEARNING WITH HANDS-ON LABS. AGAIN at VSLive! this year, there’s another full day of learning with the Sunday HANDS-ON LABS. Bring your laptop and learn by doing!

9 WE’VE NEVER SKIMPED ON CONTENT. VSLive! is known for being a technically-focused conference, with up to 5 full days of educational sessions on hot topics like ASP.NET Core, Azure, DevOps, SQL Server, Xamarin, AI, JavaScript and more!

8 LEARN FOR TODAY. PREPARE FOR TOMORROW. Get relevant, immediately usable training on what’s happening on the developer landscape now, and learn what’s coming next to get out ahead of the competition.

7 NETWORKING IS KEY. From the networking breakfasts, to evening activities, to just sitting next to someone new at lunch, you’ll have the unique chance to learn from and share with your peers, all week long!

6 UNPARALLELED SPEAKER ACCESS. What has always separated Visual Studio Live! from other conferences (and internet-based training) is the unparalleled access to the speakers. Get your questions answered in-between sessions, during meals and at fun evening events.

5 IT’S ALWAYS BEEN ABOUT PERSPECTIVE. Our speakers include both unbiased industry experts and Microsoft insiders, so you’ll hear every side of the story on the most recent software and industry updates.

4 WHAT’S OUR NAME? VISUAL STUDIO LIVE! Our goal is to help make sense and assist you in harnessing the rapid pace of Microsoft’s updates. Quarterly updates to Visual Studio and Team Foundation Server (TFS) on-premises and Visual Studio Team Services (VSTS) in the cloud continue to deliver value on a regular basis. Visual Studio even provides preview updates monthly.

3 WE ARE BACK IN BEANTOWN! Code by day and enjoy all the city has to offer and enjoy the beautiful historic life of Boston.

2 THE CHOICE IS YOURS. With so many sessions and workshops in a variety of tracks, you’re free to choose what sessions you attend and when. You aren’t bound to any one session or track! Sometimes it’s hard to choose, though, so we provide all conference proceedings and any shared code for all the sessions free to attendees!

1 New This Year! ON-DEMAND SESSION RECORDINGS. Get on-demand access for one full year to all keynotes and sessions from Visual Studio Live! Boston, including everything Tuesday-Thursday at the conference.
THE FUN STUFF: VISUAL STUDIO LIVE! BOSTON EVENTS

YOUR ATTENDANCE AT VISUAL STUDIO LIVE! BOSTON is about learning from your peers as well as our expert speakers. Make the most of your time and add these events to your itinerary.

DINE-A-ROUND DINNER  
Monday, June 10
Join other conference attendees and speakers for a casual, no-host dinner and make a few new friends while enjoying the fun and delicious restaurants in Cambridge and Boston. 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 drinks and dinner.

WELCOME RECEPTION  
Tuesday, June 11
All conference attendees are invited to celebrate the start of Visual Studio Live! Boston at the Welcome Reception. Join us in the expo area to network with fellow conference attendees and speakers, talk with the event sponsors, enjoy complimentary drinks and hors d’oeuvres, and participate in the conference raffle.

BIRDS OF A FEATHER LUNCH  
Wednesday, June 12
Enjoy lively lunchtime discussions by joining one of our table topic conversations. Tables will have a designated topic to help start discussions and interact with your fellow attendees. You may even learn a new trick or two or some great tips to take back to the office.

VSLIVE! TROLLEY TOUR OF HISTORIC BOSTON  
Wednesday, June 12 at 6:15 – 8:00pm
Turn back the pages of history and relive the bustling seaport days of colonial Boston with VSLive!’s Old Town Trolley Tour. The 2-hour tour proceeds past the site of the famous Boston Tea Party and visits historic Boston landmarks such as Faneuil Hall Marketplace, the Old State House, Boston Common, Public Garden, Trinity Church, Beacon Hill, the CHEERS Bar, Fenway, Bunker Hill Monument, the celebrated war ship USS Constitution and more! Join fellow attendees and guests, sit back and relax as the expert tour guides bring Boston history to life, weaving together colorful anecdotes, humorous stories and well-researched historical information.
**AGENDA AT-A-GLANCE**

### DevOps in the Spotlight

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>Session Title</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>9:00 AM</td>
<td>Pre-Conference Workshop Registration</td>
<td>Coffee and Morning Pastries</td>
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<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td>HOL01 Full Day Hands-On Lab: Cross-Platform Mobile Development in a Day with Xamarin and Xamarin.Forms</td>
<td>Marcel de Vries &amp; Roy Cornelissen</td>
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<tr>
<td>6:45 PM</td>
<td>9:00 PM</td>
<td>Dine-A-Round</td>
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### Cloud, Containers and Microservices

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<thead>
<tr>
<th>START TIME</th>
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</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Post-Conference Workshop Registration</td>
<td>Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td>M01 Workshop: DI for the Dev Guy</td>
<td>Miguel Castro</td>
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<tr>
<td>M03 Workshop: Cross-Platform C# Using .NET Core, Kubernetes, and WebAssembly</td>
<td>Rockford Lhotka &amp; Jason Bock</td>
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### AI, Data and Machine Learning

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<tr>
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<th>Session Title</th>
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<tr>
<td>7:00 AM</td>
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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>T01 Moving to ASP.NET Core 2.X</td>
<td>Philip Japikse</td>
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<tr>
<td>T02 Azure DevOps in the Cloud and in Your Data Center</td>
<td>Brian Randell</td>
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<tr>
<td>T03 Introduction to Azure Cosmos DB</td>
<td>Leonard Lobel</td>
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<tr>
<td>T04 UX Design Fundamentals: What Do Your Users Really See?</td>
<td>Billy Hollis</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>T05 Angular 101</td>
<td>Deborah Kurata</td>
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<tr>
<td>T06 How to Interview a Developer</td>
<td>Billy Hollis</td>
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<td>T07 Containers Demystified</td>
<td>Robert Green</td>
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<tr>
<td>T08 What’s New in C# 8</td>
<td>Jason Bock</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>KEYNOTE: Responsible Tech in the Era of AI</td>
<td>Tim O’Brien, General Manager, AI Programs, Microsoft</td>
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<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Lunch</td>
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<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td>Dessert Break - Visit Exhibitors</td>
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</tr>
<tr>
<td>1:30 PM</td>
<td>2:45 PM</td>
<td>T09 N Things You Didn’t Know About the Router</td>
<td>Deborah Kurata</td>
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<tr>
<td>T10 To Be Announced</td>
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<tr>
<td>T11 Modern SQL Server Security Features for Developers</td>
<td>Leonard Lobel</td>
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<tr>
<td>T12 Get Started with Git</td>
<td>Robert Green</td>
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<tr>
<td>3:00 PM</td>
<td>4:15 PM</td>
<td>T13 JavaScript Patterns for the C# Developer</td>
<td>Ben Hoelting</td>
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<tr>
<td>T14 Make Your App See, Hear and Think with Cognitive Services</td>
<td>Roy Cornelissen</td>
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<tr>
<td>T15 Microservices with Azure Kubernetes Service (AKS)</td>
<td>Vishwas Lele</td>
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<tr>
<td>T16 Creating Reactive Applications in .NET</td>
<td>Jason Bock</td>
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<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td>Welcome Reception</td>
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Sessions and speakers subject to change.

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**Pre-Conference Full Day Hands-On Labs: Sunday, June 9, 2019** *(Separate entry fee required)*

- **HOL01** Full Day Hands-On Lab: Cross-Platform Mobile Development in a Day with Xamarin and Xamarin.Forms - Marcel de Vries & Roy Cornelissen
- **HOL02** Full Day Hands-On Lab: Building a Modern DevOps Pipeline on Microsoft Azure with ASP.NET Core and Azure DevOps - Brian Randell & Mickey Gousset

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**Post-Conference Workshops: Monday, June 10, 2019** *(Separate entry fee required)*

- **M01** Workshop: DI for the Dev Guy - Miguel Castro
- **M03** Workshop: Cross-Platform C# Using .NET Core, Kubernetes, and WebAssembly - Rockford Lhotka & Jason Bock

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**Day 1: Tuesday, June 11, 2019**

- **T01** Moving to ASP.NET Core 2.X - Philip Japikse
- **T02** Azure DevOps in the Cloud and in Your Data Center - Brian Randell
- **T03** Introduction to Azure Cosmos DB - Leonard Lobel
- **T04** UX Design Fundamentals: What Do Your Users Really See? - Billy Hollis
- **T05** Angular 101 - Deborah Kurata
- **T06** How to Interview a Developer - Billy Hollis
- **T07** Containers Demystified - Robert Green
- **T08** What’s New in C# 8 - Jason Bock

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**Welcome Reception** (separate entry fee required)
### Day 2: Wednesday, June 12, 2019

**Registration - Coffee and Morning Pastries**

<table>
<thead>
<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>SESSION</th>
<th>TOPIC</th>
<th>SPEAKER(S)</th>
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</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>W01</td>
<td>TypeScript: The Future of Front End Web Development</td>
<td>Ben Hoelting</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W02</td>
<td>Moving to Entity Framework Core 2.x</td>
<td>Philip Japikse</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W03</td>
<td>Microservices and Containers with Service Fabric and Azure Service Fabric Mesh</td>
<td>Eric D. Boyd</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W04</td>
<td>Writing Maintainable Test Automation</td>
<td>Marcel de Vries</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W05</td>
<td>C# in the Browser with Blazor and WebAssembly</td>
<td>Rockford Lhotka</td>
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<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W06</td>
<td>Busy Developer’s Guide to NoSQL</td>
<td>Ted Neward</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>W07</td>
<td>What Every Developer Needs to Know About Deep Learning?</td>
<td>Vishwas Lele</td>
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<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>W08</td>
<td>Architecting Systems for DevOps and Continuous Delivery</td>
<td>Marcel de Vries</td>
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<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>General Session: To Be Announced</td>
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<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Birds-of-a-Feather Lunch</td>
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<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td>Dessert Break - Visit Exhibitors - Exhibitor Raffle @ 1:15pm (Must be present to win)</td>
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<tr>
<td>1:30 PM</td>
<td>1:50 PM</td>
<td>W09</td>
<td>Fast Focus: Getting Started with ASP.NET Core 2.0 Razor Pages</td>
<td>Walt Ritscher</td>
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<tr>
<td>1:30 PM</td>
<td>1:50 PM</td>
<td>W10</td>
<td>Fast Focus: Python for .NET Devs</td>
<td>Ted Neward</td>
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<tr>
<td>1:30 PM</td>
<td>1:50 PM</td>
<td>W11</td>
<td>Fast Focus: Porting Your Code from .NET to Netstandard</td>
<td>Rockford Lhotka</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W12</td>
<td>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>W13</td>
<td>Fast Focus: What is WSL and Why Do I Care?</td>
<td>Brian Randell</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W14</td>
<td>Fast Focus: Scrum in 20 Minutes</td>
<td>Benjamin Day</td>
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<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>W15</td>
<td>State of Mobile Development</td>
<td>Sam Basu</td>
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<tr>
<td>3:00 PM</td>
<td>4:00 PM</td>
<td>W16</td>
<td>AI and Analytics with Apache Spark on Azure DataBricks</td>
<td>Andrew Brust</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W17</td>
<td>Go Serverless with Azure Functions</td>
<td>Eric D. Boyd</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W18</td>
<td>CI/CID with Azure DevOps</td>
<td>Tiago Pascoal</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W19</td>
<td>Xamarin.Forms Takes You Places!</td>
<td>Sam Basu</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W20</td>
<td>Power BI: What Have You Done For Me Lately</td>
<td>Andrew Brust</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W21</td>
<td>Busy Developer’s Guide to Naked Objects</td>
<td>Ted Neward</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W22</td>
<td>Scrum Under a Waterfall</td>
<td>Benjamin Day</td>
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<tr>
<td>6:15 PM</td>
<td>8:00 PM</td>
<td>VSLive! Trolley Tour of Historic Boston</td>
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Sessions and speakers subject to change.

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“I THOUGHT ALL OF THE SPEAKERS I HEARD WERE VERY KNOWLEDGEABLE, FRIENDLY AND NOT TRYING TO MARKET THEIR COMPANIES OR SERVICES. THERE WAS NO TECHNOLOGY HARD SELL AND I APPRECIATED THAT.”

— Karl Wiggins, Randall-Reilly
“THIS WAS A GREAT CONFERENCE WITH TIMELY AND RELEVANT INFORMATION. IT WAS GREAT TO BE ABLE TO SIT AT A LUNCH TABLE WITH THE SPEAKERS AND JUST CHAT ABOUT ANYTHING! IT REALLY HUMANIZES THE PEOPLE.”

— Dave Buhl, Frontline Education
KEYNOTE / GENERAL SESSIONS

Want a front-row seat to the future of technology? Attend the two general sessions for Visual Studio Live! Boston to learn what’s hot on today’s tech landscape and what exciting developments lie ahead for this year and beyond.

Tuesday, June 11, 11:00am-12:00pm
KEYNOTE:
Responsible Tech in the Era of AI
Advanced
Tim O’Brien
General Manager, AI Programs,
Microsoft Corp.

Advances in artificial intelligence promise to reimagine everything from healthcare to transportation to retail. But like any transformative technology, the risks aren’t always obvious at the outset. For developers, AI is tremendous opportunity, and to help you get the most from it, this session will give you a greater understanding of how to approach these technologies with a clear view of the ethical considerations. The session will describe the ethical design, development, and usage implications of technologies central to AI, such as facial recognition, chatbots, and predictive analytics. You’ll learn about approaches to mitigating bias in machine learning, making neural nets more explainable, and more.

Wednesday, June 12, 11:00am-12:00pm
GENERAL SESSION:
To Be Announced

Our Conference Co-Chairs are busy putting the final touches on our informative agenda. More details on the General Session will be available soon.

"NETWORKING EVENTS WERE GREAT. SPEAKERS ARE AMAZING! ALL TECH EVENT WITH LOTS OF LIVE DEMOS! KEYNOTES!! & EXCELLENT ORGANIZERS!"

— Ajay Bhosle, Accenture
HANDS-ON LABS

Visual Studio Live! Boston offers two instructor-led, pre-conference Hands-On Labs to help you take your dev skills to a new level. Get intensive, in-depth training to complete your conference experience.

Topics covered include:
- Xamarin and Xamarin.Forms
- DevOps on Microsoft Azure DevOps with .NET Core

These labs are presented on a Bring Your Own Laptop (BYOL) basis.

Attendance for each Hands-On Lab is limited, so be sure to sign up early!

HOL01 Full Day Hands-On Lab: Cross-Platform Mobile Development in a Day with Xamarin and Xamarin.Forms
Introductory / Intermediate
MARCEL DE VRIES & ROY CORNELISSEN
Sunday, June 9, 9:00am – 6:00pm

Becoming a multi-platform mobile developer using just .NET seemed like a dream until recently. When Microsoft acquired Xamarin, it opened a whole new world of native mobile app development with the beloved .NET framework. But building high-quality apps on iOS, Android and Windows UWP isn’t just that easy and may seem daunting. This workshop 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 the native users. You’ll also learn the details of each platform, the app concepts of each platform, because 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 amongst 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 codebase
- 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.

Either 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, including the tools for Xamarin mobile development. A quick overview can be found in the following video or blogpost.

Any edition of Visual Studio will do.

Please make sure to download Xamarin and the platform SDK’s (Android, iOS, Windows) before the conference, as these downloads take up a lot of bandwidth.

HOL02 Full Day Hands-On Lab: Building a Modern DevOps Pipeline on Microsoft Azure with ASP.NET Core and Azure DevOps
Introductory / Intermediate
BRIAN RANDELL & MICKEY GOUSSET
Sunday, June 9, 9:00am – 6:00pm

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. As a developer, 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”?

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

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, will look at how you create a deployment pipeline to multiple environments and how you validate a deployment after its release using Azure App Services (both web apps and containers). Finally, the monitor & learn phase will cover analytics and user feedback and how you start the cycle over again.

By the end of the day you’ll have your own Azure DevOps organization with a CI/CD pipeline configured, a deployed app, and the hands-on experience on how to build a modern ASP.NET Core and SQL Database solution that runs in Azure using Azure DevOps.

Each attendee will need the following, ready to go, for the workshop:
- A Windows x64 computer with Wi-Fi where you have local administrator rights
- Visual Studio 2017 Community, Professional, or Enterprise with the ASP.NET, Database, and Azure workloads installed (additional specifics if needed will be provided two weeks before the workshop)
- A valid, active Azure subscription where you the attendee are an administrator
- A Microsoft Account (aka a Live ID/Xbox ID)

Experience with C# coding and basic SQL Server knowledge required.

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WORKSHOPS

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Topics covered include:
• Cross platform C# with .NET Core, Kubernetes, and WebAssembly
• Dependency Injection Deep Dive
• SQL Server for Developers

M01 Workshop: DI for the Dev Guy
Intermediate
MIGUEL CASTRO
Monday, June 10, 8:00am – 5:00pm
I love opening the eyes of developers to Dependency Injection (DI), both as a pattern and a product. But every time I do a session on it, I run out of time. Something always has to be sacrificed. No more. Time to do an entire workshop on it and cover everything.

I’ll start by demonstrating the problem spaces we’re trying to fix, then I’ll show you how to fix them. I will describe, explain, demonstrate, rinse and repeat all things DI. I’ll go over the pattern and a variety of open-source products out there to implement it. It’s more than just register and resolve. There are a lot of details and choices to make and you’ll learn them here.

After you’ve learned how to fully use a DI container and what it can do for you, I’ll show you how to implement it in a variety of scenarios. Everything from XAML applications to a variety of Web applications to services of different kinds. I’ll cover not only the built-in DI capabilities of ASP.NET Core, but also how to use another DI container with it and how to even incorporate DI in areas in which you may not know was even possible, like controller filter attributes.

We’ll conclude the day with the conversion of an untestable app with no DI in sight to being fully testable and taking complete advantage of dependency injection.

You will learn:
• Problem spaces with both testing and resolving dependencies
• Implementing DI into various app platforms
• Unit testing properly abstracted applications

M02 Workshop: SQL Server for Developers: The Grand Expedition
Intermediate
ANDREW BRUST & LEONARD LOBEL
Monday, June 10, 8:00am – 5:00pm
This all-day workshop on SQL Server will provide coverage of a wide range of the platform’s capabilities and optimal usage of them, from core features like security and T-SQL language improvements; to new innovations like running SQL Server in containers and utilizing temporal tables; to the latest in operational analytics, machine learning (ML) and Big Data. You’ll learn about critical features that have been in the product for some time, as well as many of the latest features, delivered in SQL Server 2019. That’s the tl;dr. For details, read on!

We’ll kick things off with the most important features added to the relational engine, including broad multi-platform support across Windows, Linux, and Docker. Then you’ll explore all the latest T-SQL enhancements, including more convenient DDL statements, new string split, join, and aggregate functions, partition truncation, and other language improvements.

But data platforms aren’t just about operational databases anymore, and neither is SQL Server. So we’ll next move on to its analytics capabilities, starting with columnstore indexes: what they are; how to create them; how they benefit massive data warehouse-style queries; and tips for monitoring how they’re used in query plans.

From there we’ll look at PolyBase, including its connectivity to data lakes on Hadoop clusters and cloud storage as well new connectivity to databases like Oracle, Teradata, MongoDB and even additional SQL Server instances. Next, we’ll look at SQL Server’s Big Data clusters and their incorporation of technologies like Apache Spark, the Hadoop Distributed File System (HDFS) and data stored in the Apache Parquet columnar format.
We’ll start to wind down our analytics tour with a look at SQL Server’s machine learning capabilities, including in-database features made possible by native hosting of the Python and R programming languages. And as the last stop on our analytics tour, we’ll take in how to use Azure Data Studio to query SQL Server and the platforms it integrates with, as well as leverage SQL Server’s data science features.

Our workshop continues with the latest security features, including dynamic data masking (DDM), row level security (RLS), and Always Encrypted. You’ll also get a look at the new “secure enclaves” feature in SQL Server 2019 that enables rich query and range operations on always encrypted data. We’ll conclude by exploring temporal tables (versioned tables that enable instant point-in-time queries over your data) and Stretch DB for online archival of historical data.

Attend this workshop, designed especially for developers, and get up-to-speed on both the latest relevant SQL Server features and the product’s classic critical capabilities!

You will learn:
• How to accelerate your database development process by running cross-platform SQL Server inside containers with Docker
• The latest T-SQL language enhancements, plus DDM, RLS, Always Encrypted, temporal tables, and Stretch DB
• How to use SQL Server for data warehouse, big data and machine learning workloads
• The basics of new SQL Server-integrated open source technologies, including Spark, HDFS, Python, R and Parquet

M03 Workshop: Cross-Platform C# Using .NET Core, Kubernetes, and WebAssembly
Intermediate
ROCKFORD LHOTKA & JASON BOCK
Monday, June 10, 8:00am – 5:00pm

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. Increasingly we’re running server-side code in container-based environments such as Docker and Kubernetes. 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/Kubernetes, 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.

You will learn:
• How to build C# and .NET code that runs cross-platform on client and server
• How to leverage .NET Standard and .NET Core
• How to share common code across platforms
SESSION DESCRIPTIONS BY TRACK

DEVOPS IN THE SPOTLIGHT

DevOps has been called the second decade of Agile. While it’s easy to get obsessed over tools, it’s really about organizational transformation. It starts with people, better process, and then yes, good products can make all the difference. DevOps is all about continuous value delivery. You have a role to play when it comes to DevOps, and in this track, you’ll learn the about the tools, techniques, and concepts that you can immediately apply to your daily work.

You’ll find coverage of:
• Azure DevOps Services in the cloud
• Azure DevOps Server on premises (formally named Team Foundation Server)
• Writing maintainable test automation
• Architecting solutions for DevOps and continuous delivery
• Getting started with git
• SCRUM
• Azure Secure DevOps
• Database DevOps

T02 Azure DevOps in the Cloud and in Your Data Center
Introductory
BRIAN RANDELL
Tuesday, June 11, 8:00 – 9:15am

Every company is a software company. How you and your team build software, your engineering practices, your toolkit, affects your ability to help your business succeed. In this session, we’ll look at what a modern DevOps pipeline looks like when using Azure DevOps Services or Azure DevOps Server 2019. You’ll hear and see how people, process, and products can come together to deliver better solutions, faster, for any app, using any code, on any platform.

You will learn:
• Why DevOps Matters
• How to Azure DevOps can help you create a CI/CD pipeline
• How you continuously improve your process

T12 Get Started with Git
Intermediate
ROBERT GREEN
Tuesday, June 11, 1:30 – 2:45pm

Git is a free, open source distributed version control system. It has become wildly popular as a way to not only manage source code, but also as a way of sharing code with others. In this session, you will learn the basics of using Git. You will get familiar with repos, committing changes, branching and merging. You’ll see how to work with both new and existing projects, how to store your code in both GitHub and Visual Studio Team Services and how to work with Git in Visual Studio.

You will learn:
• What Git is and how to get started using it
• Get familiar with the basics of Git, including repos, committing changes, branching and merging
• How to use Git with GitHub, VSTS and Visual Studio

W04 Writing Maintainable Test Automation
Intermediate
MARCEL DE VRIES
Wednesday, June 12, 8:00 – 9:15am

How well do you test your application or Web site? Are you still testing your applications or sites manually and does that take a lot of time? Do you find it hard to create and maintain automated tests for your applications? Have you created automated tests but do you find them hard to maintain? This session will teach you how to build maintainable automated test suites using various technologies like Selenium or Appium and integrate it with Microsoft Azure DevOps to give you a holistic view of your current sprint in terms of test completion and coverage.

In this session you’ll learn to build test suites in such a way that they are maintainable by default. This session will introduce the concepts like: Page Objects, DRY and DAMP tests.

You will learn:
• Test automation frameworks that are commonly used
• Writing Maintainable test automation
• Integrating test automation with Azure DevOps

W08 Architecting Systems for DevOps and Continuous Delivery
Intermediate
MARCEL DE VRIES
Wednesday, June 12, 9:30 – 10:45am

“You build it, you run it!” It is a great DevOps tagline, but how can you make this work in practice? In order to “run” the software you need to have insights in how your application is doing in production. You need insights into the performance, usage, infrastructure utilization and new releases that are deployed and their impact.
In this session, Marcel will provide you with practical architectural principles that will help you:

- Separate deployment from release so you can deliver your software any time you want, without downtime
- Get telemetry and insights on product usage, Performance and infrastructure utilization

In DevOps you also strive for autonomy. You just don’t want dependencies on other teams. How do you design your system to be independent of other system, while still integrating?

Marcel will talk about how to gather telemetry and performance data, deployment techniques, and development techniques that prevent downtime. After this talk, you will have new insights into how to build a system that you can build and run without losing sleep when you are on pager duty.

You will learn:
- Why we do the things we do
- To rethink current approaches and consider new ways of achieving goals
- Modern deployment techniques

W18 CI/CID with Azure DevOps
Introductory / Intermediate
TIAGO PASCOAL
Wednesday, June 12, 2:30 – 3:45pm
Automating the building and deploying of applications should be an easy task, something you can do quickly and effortlessly. Come learn how! In this session, you will learn how Azure DevOps can automate your build pipeline. And not just for compiling code, but for running automated tests and code analysis tools too! Let’s not stop there though. Building code would be useless if we don’t do anything with it. You are also going to learn how to use Azure Pipelines to deploy code to your environment(s), whether you are using on-premises machines or a cloud provider, any cloud provider. Interested? See you at the session!

You will learn:
- How to build Azure DevOps Pipelines to build and deploy code
- Deploy code to both on premise and to the cloud
- Continues Integration and Continuous Delivery

Your team thinks “backlog” and your bosses think “project plan.” How do you make it work? How do you ensure communication and foster trust between the two groups? How do you bridge the project management impedance mismatch? You need to find a way get everybody to ‘play nice’ so they can do their jobs.

In this session, we’ll drill into the details of the project management impedance mismatch and talk about strategies to improve communication and delivery when you need to make Agile work inside a Waterfall-centric organization.

You will learn:
- Similarities and differences between Waterfall and Scrum/Agile?
- How to bridge the divide between the two project management styles and cultures?
- What anti-patterns should you look out for? What tools can help you?

TH04 Bolting Security Into Your Development Process
Introductory / Intermediate
TIAGO PASCOAL
Thursday, June 13, 8:00 – 9:15am
Security is no longer optional; organizations can no longer look the other way. A security breach is something that not only brings reputational costs but can also cost millions of dollars in losses from lost business or lawsuits. Humans are always going to be part of the development process, but automation is the first line of defense. In this session, you will learn what security issues to look for when developing and deploying software, and potential changes you should consider to your development process to handle them. You will also learn how Azure DevOps, and other tools, can be used to provide process control and automation that allows you to ship more secure software.

You will learn:
- How to make your development process more secure
- Common security scanning tools
- DevSecOps
TH08  Data(base) DevOps in the Azure Cloud
Intermediate
BRIAN RANDELL
Thursday, June 13, 9:30 – 10:45am
Data persistence is the foundation of all apps. When you work with the Azure Cloud you have tons of choice. Do you still choose SQL Server? If yes, do you use VMs, SQL Database, or managed instances? What about containers? And what is this Cosmos DB thing? Do you even care about table and Blob storage? In this session, Brian will address these topics from the perspective of a modern DevOps pipeline created using Azure DevOps. He’ll look at the workflow and how you may make your choices for the best application experience and best DevOps experience.
You will learn:
• Why you need DevOps for your data layer
• How to pick a data persistence layer in the cloud
• How to use Azure DevOps to manage your DevOps pipeline

CLOUD, CONTAINERS, AND MICROSERVICES
Cloud computing is no longer new. For most organizations, it’s not a matter of “if”, it’s more about how much. Container technologies such as Docker and Kubernetes (aka k8s) are having a large impact on cloud computing, as well as on 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 is hard to imagine any enterprise development scenario where one or more of these trends would not be high on the list of critical skills.

You will learn:
• Why you need DevOps for your data layer
• How to pick a data persistence layer in the cloud
• How to use Azure DevOps to manage your DevOps pipeline

T07  Containers Demystified
Intermediate
ROBERT GREEN
Tuesday, June 11, 9:30 – 10:45am
It’s hard to have a discussion about cloud computing these days without talking about containers. The technology and tooling are maturing, usage is growing and there are a lot of concepts you will need to learn about. This session will get you started. You will learn what containers are and why you might use them. How do they compare to VMs? Why are there Windows and Linux containers? Where do containers run? How do you run them in Azure? What are Docker, Kubernetes, Orchestration, Container Registries, Microservices and how do they fit into the container landscape? And what is Visual Studio doing to make this easier? At the end of this session, containers will make sense and you will be able to start learning how to develop and deploy them.

You will learn:
• Why you need DevOps for your data layer
• How to pick a data persistence layer in the cloud
• How to use Azure DevOps to manage your DevOps pipeline

T15  Microservices with Azure Kubernetes Service (AKS)
Intermediate
VISHWAS LELE
Tuesday, June 11, 3:00 – 4:15pm
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
W03  Microservices and Containers with Service Fabric and Azure Service Fabric Mesh
Introductory / Intermediate
ERIC D. BOYD
Wednesday, June 12, 8:00 – 9:15am
Service Fabric is the foundational technology that powers Microsoft Azure large-scale services such as Azure Cosmos DB, Azure SQL Database, Microsoft Dynamics 365, and Cortana. In this session you’ll get an overview of Service Fabric and the application and service model. You’ll learn how to develop Service Fabric applications and how to deploy those applications to Service Fabric clusters and the new serverless Service Fabric Mesh service. We’ll dive into the platform and programming model advantages including stateful services and actors for low-latency data processing and more.

You will learn:
- Overview of microservices and containers
- Getting started with Azure Service Fabric
- Developing microservices with Azure Service Fabric

W12  Fast Focus: Serverless Computing: Azure Functions and Xamarin in 20 Minutes
Intermediate
LAURENT BUGNION
Wednesday, June 12, 2:00 – 2:20pm
One of the most exciting recent additions to Microsoft Azure is called Functions and allows the developer to quickly build and deploy code to the cloud without 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:
- Overview of serverless compute
- How to develop serverless services
- Getting started with Azure Functions

W07  What Every Developer Needs to Know About Deep Learning
Intermediate / Advanced
VISHVAS LELE
Wednesday, June 12, 9:30 – 10:45am
In this session we will look at deep learning to as an increasingly important toolset for developers.

You will learn:
- About Deep Learning
- About Convolutional neural network
- How to use Deep to solve real world examples

W17  Go Serverless with Azure Functions
Introductory / Intermediate
ERIC D. BOYD
Wednesday, June 12, 2:30 – 3:45pm
Idle CPU cycles are wasteful, but it’s very likely that you have far more computing capacity than you use. However, serverless compute architectures have arrived to save us from that waste. Serverless is a shift in how we think about provisioning compute resources and paying for these resources from cloud providers. Instead of deploying resources and underutilizing them, you truly pay for consumption and the compute cycles you use.

Join Azure MVP, Eric D. Boyd to learn how Microsoft is enabling serverless compute in Azure with Azure Functions. In this session, you will learn what serverless architectures and Azure Functions are all about. You will get an overview of how to get started developing and running serverless code. And you will explore how to integrate with other services and trigger your code from events throughout Azure and even in data centers outside of Azure.

In addition to the fundamentals of developing and deploying serverless code in Azure Functions, you will learn about the tooling and DevOps capabilities that exist for working with Functions. And last, but not least, we will model the pricing together so you understand the billing model and what to expect when running Azure Functions and when to use Azure Functions over other platforms.

You will learn:
- Overview of serverless compute
- How to develop serverless services
- Getting started with Azure Functions

TH02  Taking Advantage of AI Easily with Azure Cognitive Services
Intermediate / Advanced
LAURENT BUGNION
Thursday, June 13, 8:00 – 9:15am
Data Science and Artificial Intelligence are fascinating areas of computing. Microsoft is betting a lot on these new technologies, but we are also aware that data scientists are highly trained professionals, and that not every software developer can create and maintain complex data models, perform linear algebra or purchase expensive GPU rigs to run these models. This is exactly why we created Cognitive services. This suite of services offers...
pre-trained models that you can use out-of-the-box to perform operations in Vision, Speech, Knowledge, Search and Language. In this session, Laurent Bugnion, a Cloud Developer Advocate with Microsoft will show you how you can use cognitive services to enhance your applications with advanced capabilities, how you can refine the trained models with your own data and how you can integrate Cognitive Services with other Azure services to automate tasks.

You will learn:
- Take a tour of the existing cognitive services and understand what their strengths and weaknesses are.
- See how the cognitive services can be used in web, desktop and mobile applications.
- Talk about what you can do when cognitive services are not enough.

**AI, DATA, AND MACHINE LEARNING**

Data has once again become one of the hottest topics in our industry. Advances in relational tools like SQL Server are exciting, but then there’s all the cool stuff happening around NoSQL too! And a major driver for all this excitement around data is how it enables AI scenarios and how businesses are rapidly relying on machine learning. 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:
- SQL Server for developers
- Azure Cosmos DB
- Entity Framework Core
- SQL Server security
- NoSQL
- Python for .NET developers
- AI and analytics with HDInsight, Azure Databricks, Cognitive Services, Automated Machine Learning and Azure Machine Learning
- Power BI

**T03 Introduction to Azure Cosmos DB**

*Introductory / Intermediate*

**LEONARD LOBEL**

**Wednesday, June 11, 8:00 – 9:00am**

This session presents an overview of Azure Cosmos DB, a globally distributed, massively scalable, low (single-digit millisecond) latency, fully managed NoSQL database service that is 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% 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 which 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:
- About 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

**T11 Modern SQL Server Security Features for Developers**

*Introductory / Intermediate*

**LEONARD LOBEL**

**Tuesday, June 11, 1:30 – 2:45pm**

With the release of SQL Server 2016, the database engine has been greatly enhanced for security, with three new features that you’ll learn about in this demo-packed session. With dynamic data masking (DDM), you can fully or partially conceal sensitive columns from query
results. Masking does not modify data on in the table; it simply hides data from users that don’t have permission to see it. Row-level security (RLS) also hides data from unauthorized users, but at the row level. With RLS, you can create your own security policy to control which users can read or write specific rows in the table. Finally, Always Encrypted (AE) uses client-side encryption to ensure that data is encrypted in flight, not just at rest. Furthermore, the encryption keys are accessible only to the client. This guarantees that data cannot be decrypted on the server, easing the migration path to the cloud for users with highly sensitive data.

You will learn:
• How dynamic data masking (DDM) can hide sensitive columns from unauthorized users
• About row-level security (RLS) to filter or block individual rows from different users
• About Always Encrypted (AE), a client-side database encryption technology that protects data everywhere, both at rest and in-flight

**W02** Moving to Entity Framework Core 2.x  
*Introductory / Intermediate*

**PHILIP JAPIKSE**

*Wednesday, June 12, 8:00 – 9:15am*

Writing data access code is tedious and mundane. The simple act of creating the CRUD (Create, Read, Update, Delete) operations doesn’t add business value to your application, but it is an absolute necessity. In this session, I show you the core features of EF Core 2 and how it can save you valuable time that is much better spent on providing business value and compelling features into your applications. This session is designed for developers new to Entity Framework and ORMs.

You will learn:
• Getting started with EF Core and why to use it
• Querying with Linq
• Adding, Updating, Deleting plus much more!

**W06** Busy Developer’s Guide to NoSQL  
*Introductory*

**TED NEWARD**

*Wednesday, June 12, 9:30 – 10:45am*

With the introduction of CouchDB to the world, the world suddenly seemed to be alive with a whole slew of “alternative” approaches to data persistence, collectively called “NoSQL” and offering a “slightly different” to “radically different” view of data storage and retrieval. It’s left a few developers scratching their heads, trying to figure out when to use a NoSQL database instead of a regular database, much less which NoSQL database to use. In this session, we’ll examine the NoSQL ecosystem, look at the major players, how the compare and contrast, and what sort of architectural implications they have for software systems in general.

You will learn:
• What is a NoSQL?
• Why did NoSQL come to be?
• How do I evaluate one over another (and against an RDBMS)?

**W10** Fast Focus: Python for .NET Devs  
*Introductory / Intermediate*

**TED NEWARD**

*Wednesday, June 12, 1:30 – 1:50pm*

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.

**W16** AI and Analytics with Apache Spark on Azure Databricks  
*Intermediate*

**ANDREW BRUST**

*Wednesday, June 12, 2:30 – 3:45pm*

Open source technology Apache Spark as the analytics and machine learning platform of choice for many companies. While Spark has manifested in numerous parts of the Microsoft stack, including SQL Server 2019, Microsoft’s go-to Spark service is Azure Databricks. The service, from Microsoft and Databricks (the company founded by Spark’s creators), is a versatile one, geared towards analytics, data engineering and data science. Azure Databricks lets developers work in notebooks, offline, interactively with running clusters, or schedule them as production jobs that provision Spark clusters on-demand.

This session will cover the concepts, service mechanics, and code necessary for you to do analytics and machine learning on Azure Databricks, and integrate it with other Microsoft cloud services and on-premises technologies.

You will learn:
• About the fundamentals of Apache Spark, Spark SQL and Spark MLlib
• How to use Databricks notebooks
• How to manage clusters and jobs
• How to integrate Azure Databricks with blob storage and Azure Data Lake Store (ADLS)
• How to write Python code for both analytics and machine learning
W20 Power BI: What Have You Done For Me Lately

Intermediate

ANDREW BRUST

Wednesday, June 12, 4:00 – 5:15pm

Power BI has been a runaway success in adoption and mindshare, rocketing Microsoft past many of its business intelligence competitors. You may already know Power BI creates great looking visualizations, or that it runs on Windows, iOS, Android, and in the cloud. But do you know how to use it? And if you do, is your knowledge current with all the new features of this product that’s updated on a monthly basis?

Come to this session for a combination quick intro to Power BI (including its technology underpinnings, the costs around it and, of course, how to use it) and primer on several newer features, including data flows, AI features, composite models and Python integration. We’ll even cover features released after this abstract is published.

You will learn:
• Power BI Basics: Reports and dashboards on desktop, cloud and mobile
• New and recent features like data flows and AI integration
• Using Power BI for Big Data analytics with aggregation tables and composite models
• Scripts and visualizations with Python and R

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 gesture, 3D, mixed-reality, and more. Fortunately, we’ve got you covered with content from phones to PCs to augmented and mixed reality.

This track includes coverage of the following:
• Xamarin and Xamarin Forms
• Xamarin Essentials
• The State of Mobile Development
• Cognitive services
• Virtual and Augmented reality
• WPF and .NET Core
• Integrating voice into your apps

W15 State of Mobile Development

Intermediate

SAM BASU

Wednesday, June 12, 2:30 - 3:45pm

It’s 2019 & developers have a lot of choice in how to build mobile apps. However, mobile strategy needs to be driven by type of app, platform reach and developer expertise. Is the Cordova hybrid route still an option? What are key factors that demand native mobile apps for iOS/Android/UWP? Developers also want to leverage preferred technology stacks - .NET or JavaScript. Is Xamarin the solve-it-all for .NET mobile development? How do NativeScript & React Native fare for JS Native apps? How does WebAssembly play in the mobile space? What about Flutter or Uno?

The goal is to make truly cross-platform mobile apps - from single code base with easy code sharing. With matured tooling in each stack, the technology choice should not matter as much. Let’s recap options, glimpse into the future and equip ourselves to build amazing mobile apps.

You will learn:
• Explore various options when building for Mobile
• See tooling and maturity of each tech stack
• See demos of latest features across various stacks
W19 Xamarin.Forms Takes You Places!
Intermediate
SAM BASU
Wednesday, June 12, 4:00 - 5:15pm
You’ve heard the buzz – target every mobile platform from a single C#/XAML codebase. 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 & Windows – did you know your Xamarin.Forms apps could target MacOS, Tizen, Smart Watches, Smart TVs, Refrigerators & HoloLens? And it’s not just futuristic devices or platforms, you could take Xamarin.Forms goodness back to WPF & even Web! Yes, we’re talking XAML being back in the browser – just different this time. All this isn’t utopia, but an absolute reality today. Let’s dive into Xamarin.Forms and unearth the magic behind the cross-platform development democratization for .NET developers.
You will learn:
• Understand the promise of Xamarin.Forms
• Explore various platforms supported by Xamarin.Forms
• Look at tools & code sharing strategies

TH03 Add Native to Cross Platform with Xamarin.Essentials
Introductory / Intermediate
VERONIKA KOLESNIKOVA
Thursday, June 12, 8:00 - 9:15am
For every mobile cross platform developer, it’s important not only create a look and feel of a native application, but provide access to native functionality. The easiest way to access native APIs when building apps with Xamarin is Xamarin.Essentials.
In this session, you’ll learn more about Xamarin and Xamarin.Forms specifics, ways of accessing native functionality and overview of Xamarin.Essentials. Learn about the newest tools for cross platform developers and ways of making your Xamarin app look, feel and function the same way as native
You will learn:
• Xamarin.Forms specifics
• Ways of accessing native functionality in Xamarin
• Application and benefits of Xamarin Essentials

TH06 (WPF + WinForms) + .NET Core = Modern Desktop
Introductory
OREN NOVOTNY
Thursday, June 13, 9:30 – 10:45am
Learn how .NET Core 3 brings WPF and Windows Forms into the future with a modern runtime. See what’s new for WPF and Windows Forms, learn how to easily retarget your .NET Framework application over to .NET Core, and how to get these modern desktop apps to your users.
You will learn:
• How to modernize WPF & WinForms apps to run on .NET Core 3
• Ways to distribute Modern Desktop apps
• What .NET Core 3 means for desktop development

TH07 Now, the Two Worlds Collided
Introductory / Intermediate
VERONIKA KOLESNIKOVA & WILLY CI
Thursday, June 12, 9:30 - 10:45am
Augmented and virtual realities are getting increasingly more popular not only among developers, but also consumers. Now we can add those technologies to web and mobile applications.
Augmented reality mobile applications can be used in a wide variety of projects, no matter if it’s for healthcare, games and entertainment or interior and design companies.
This session will provide information about the most popular AR frameworks and software development kits (SDKs) for mobile and web. We’ll learn pros and cons and what can be the best environment for using each of them. You’ll see which ones can be used in Xamarin and Xamarin.Forms apps and some tips and tricks for creating your first AR Xamarin app with C#.
You will learn:
• Understand how AR works on mobile platform
• About the most popular AR frameworks for mobile and web
• How to create an AR app

TH11 Integrate Voice into Your Applications
Introductory
WALT RITSCHER
Thursday, June 13, 11:00am – 12:15pm
Voice and speech recognition appear everywhere in today’s devices. You’ll find great implementations in Amazon Alexa, Apple Siri, OK Google and Microsoft Cortana. The dream of talking to your computer, telling it what to do, and then sitting back and watching it carry out the request is now a reality. Microsoft has always had great speech APIs and improved versions of these APIs are available in Windows 10. With Cortana, the built-in speech enabled personal assistant, users employ their voice to search and interact with applications. In this session learn how Cortana is integrated in Windows and how to add voice control and speech synthesis to your Windows app through the Speech API. See the new active integration services added in recent Windows 10 updates.
You will learn:
• How to add custom voice control within your app
• How to configure Cortana to invoke your app action
• Study how to plug custom UI into the Cortana window
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 communication and conflict, 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:
- Dependency Injection
- Windows Subsystem for Linux (WSL) for developers
- UX design fundamentals
- Developer interview techniques
- Test Driven Development
- How to work remotely
- How to use planning poker to estimate projects
- Code signing the easy way

T04 UX Design Fundamentals: What Do Your Users Really See?
Introductory
BILLY HOLLIS
Tuesday, June 11, 8:00 - 9:15am

Developers are often unaware of how their users actually see their screens. In this UX design session, we’ll discuss the most important principles concerning how the human brain and visual system determine how users see application interfaces. We’ll look at Gestalt principles for grouping and highlighting, inattentional blindness and change blindness, how users scan through a view, and how to promote clarity in interfaces with levels of emphasis. Tests will help attendees see how they personally experience these principles, and better understand the challenges faced by their users when views and pages are not designed to respect design principles.

You will learn:
- Understand limitations in the human visual system for experiencing computer screens
- Principles to leverage the human visual system for better and faster understanding of interfaces
- Comparisons of real app views done badly and redesigned to be better

T06 How to Interview a Developer
Introductory / Intermediate
BILLY HOLLIS
Tuesday, June 11, 9:30 - 10:45am

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

W13 Fast Focus: What is WSL and Why Do I Care?
Introductory / Intermediate
BRIAN RANDELL
Wednesday, June 12, 2:00 – 2:20pm

WSL or the Windows Subsystem for Linux brings a real bash shell to Windows 10 and Windows Server. In this quick tour, Brian will take you from nothing to something and show you some wonderful things you can do to live a heterogeneous developer lifestyle at the command-line.

You will learn:
- Why WSL
- How to install WSL
- Ways to use WSL

TH10 Unit Testing & Test-Driven Development (TDD) for Mere Mortals
Intermediate
BENJAMIN DAY
Thursday, June 13, 11:00am – 12:15pm

Unit Testing and Test-Driven Development (TDD) arguably mean the same thing. They (both describe a way of developing software so that you always know whether or not it’s working. You write little chunks of code (unit tests) that verify the objects and methods in your application’s code and it helps you make sure that you have PROOF that your code works. It also makes your code easier to maintain and easier to refactor. Plus, while it might not feel like it right away, writing using tests makes your development process go a lot faster.

In this session, Ben will discuss what unit testing & TDD are all about, why you should care, and how to do it with C# and ASP.NET MVC. Along the way, expect to hear about “designing for testability” and some really helpful testability design patterns like the Strategy, Repository, and Adapter patterns.
You will learn:

• Why write unit tests
• How to write unit tests
• How to think about technical debt and code written without unit test and making it testable

TH15  Offices are Over: How & Why to Work Remotely in the Digital Age
Introductory / Intermediate
LAURA B. JANUSEK
Thursday, June 13, 1:30 – 2:45pm
The remote working trend is becoming more and more popular, whether it’s a weekly work-from-home day or an overall company structure. The majority (67%) of remote work programs are offered at manager’s discretion, so it could be right around the corner. And if you’re a manager, it could be up to you!

You will learn:

• Leverage statistics to negotiate a remote team structure with management
• Use a range of strategies to engage with remote team members
• Incorporate tech tools into daily workflow for easy collaboration with remote team members

TH18  Signing Your Code the Easy Way
Intermediate / Advanced
OREN NOVOTNY
Thursday, June 13, 3:00 – 4:15pm
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:

• Introduction to code signing and Authenticode
• Get a code signing service setup quickly and securely for your organization that supports any Authenticode-supported file type, Microsoft 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)

TH19  Get Your Poker Face On: How to Use Planning Poker to Slay Project Estimations
Introductory / Intermediate
LAURA B. JANUSEK
Thursday, June 13, 3:00 – 4:15pm
This session will explore how to use Planning Poker — the Agile, consensus-based estimation technique — to generate data-informed project estimations for your product roadmap. Attendees will gain insight into the process with real-world examples and tips from an experienced project manager and product owner. They will learn how to use Planning Poker for a range of project types and team structures, how to leverage free online tools like a project-planning pro, and how to make the estimation process feel less like a chore and more like a game!

You will learn:

• Create data-informed project timelines for their product roadmap or other projects
• Facilitate Planning Poker sessions with a range of team sizes and project types
• Integrate free online technology tools into the Planning Poker experience for easier data collection

.NET CORE 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 and .NET Core, not to mention the cool features added to C#, Roslyn and Visual Studio. These are the base-level tools you need to know for success in the Microsoft development world.

Topics in this track include:

• Cross-platform development with C#, WebAssembly, and Kubernetes
• C# 8
• Creating reactive apps in .NET
• Moving from .NET Framework to .NET Standard
• Developing using naked objects
• .NET Core, .NET Standard
• .NET delegates, Func, Action, and more
• Task, await, and async in C#
• Building static analyzers

T08  What’s New in C# 8
Intermediate
JASON BOCK
Tuesday, June 11, 9:30 – 10:45am
C# is an open-source, mature object oriented language, used by millions of .NET developers, yet its evolution is still underway. In this session, we’ll cover the latest features that have been added to C#8 and how they work in detail so you’ll know when to use them effectively in

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SESSION DESCRIPTIONS BY TRACK (continued)

your new .NET projects. You’ll also see the direction C# may be going with future versions of C#.

You will learn:
• How new C#8 features work
• Understand what the features provide to use them effectively
• Gain insight into the OSS world of C# and how one can be a part of future language evolution

T16 Creating Reactive Applications in .NET
Intermediate
JASON BOCK
Tuesday, June 11, 3:00 – 4:15pm
In modern applications, data is being retrieved in asynchronous, real-time streams. The days of traditional pull requests where the client asks for data from the server are becoming a thing of the past. Reactive applications incorporate push notifications to provide real-time updates to users. In this session, you’ll see how you can use frameworks like Rx and SignalR to seamlessly add this facet to your applications, be they native or web. You’ll also discover how async streams, a proposed C#8 feature, can be used to consume data streams.

You will learn:
• Understand the benefits of reactive programming
• Using frameworks such as Rx and SignalR in native and web applications
• See new C# features to empower reactive development

W11 Fast Focus: Porting Your Code from .NET to Netstandard
Intermediate
ROCKFORD LHOTKA
Wednesday, June 12, 1:30 – 1:50pm
The future of .NET is .NET Core and netstandard. Learn how the large codebase of CSLA .NET was adapted to support netstandard 1.5, 1.6 and 2.0 while continuing to support full .NET (and Xamarin and UWP).

You will learn:
• How .NET Core relates to .NET Standard
• How to migrate .NET Framework code to .NET Standard
• How to share code between editions of .NET

W21 Busy Developer’s Guide to Naked Objects
Introductory
TED NEWARD
Wednesday, June 12, 4:00 – 5:15pm
“I invented the term ‘object-oriented’, and I can tell you for a fact that C++ was not what I had in mind.” --Alan Kay, inventor of Smalltalk (among other things)

But what, exactly, did Mr. Kay have in mind? If not the kind of object-oriented that C++ (and later Java and C#) developers became accustomed to, then what did he really imagine O-O development would be like? In this presentation, we’ll examine a concept more recently popularized as “naked objects”--the idea that objects should not be used to present a user interface, but that the user interface should be based around the domain objects themselves. We’ll look at the Naked Objects libraries, how they work, and what development using NakedObjects looks and feels like. Careful, though: once you start working with this stuff, you may never want to go back to “traditional” means of writing code ever again.

You will learn:
• What is a naked object?
• Why is this a useful tool?
• How on earth could I build a fully-functioning app in an afternoon?

TH12 .NET Standard, .NET Core, Why and How?
Intermediate / Advanced
LAURENT BUGNION
Thursday, June 13, 11:00am – 12:15pm
.NET Standard is the new way to create portable assemblies. After learning about portable class libraries in the past years, it is now time to upgrade our game and start coding for Linux, Mac OS and other platforms in addition to Windows. More and more libraries are getting ported to .NET Standard, sometimes really easily and sometimes more painfully. In this session, Laurent Bugnion, the creator of the popular open source MVVM Light Toolkit, will help you understand why .NET Standard can benefit you. We’ll talk about ASP.NET Core, see how easily we can containerize and deploy our web applications to Linux on Azure. Finally Laurent will also talk about his experiences converting his open source framework to .NET Standard.

You will learn:
• Understand what .NET Standard and .NET Core are
• Prepare yourself to convert your own libraries to .NET Standard
• Hear “from the field” how to work around issues
**TH14  Improving Code Quality with Static Analyzers**  
*Intermediate*  
**JIM WOOLEY**  
**Thursday, June 13, 1:30 – 2:45pm**  
How do you keep code consistent across a team or make sure your independent code follows accepted standards, use a Static Analyzer tool. See how to use some of these tools for your .Net, JavaScript, Style sheets, etc. to improve your code as an independent or large team lead.

Whether you’re an independent developer that needs assistance reviewing your code, or a member of a large team that wants to keep code consistency among the team, static analyzer tools can help identify and optionally fix issues in your code. Many platforms have their own version to help based on the language, including Roslyn, JsLint, CssLint, SonarQube, FxCop, StyleCop, etc. We’ll take a look at some of these tools and explore how they can help identify issues in your code and improve maintainability and decrease errors before you deploy to production. We’ll also look at the ability to build your own tool to enforce rules in your specific domain.

You will learn:  
- Understand why code quality matters regardless of team size  
- How to use analysis tools and linters to automate repetitive code review tasks and learn about industry standard best practices  
- Discover how to customize existing tools to meet your team’s specific needs

**TH16  Get Func-y: Understanding Delegates in .NET**  
*Introductory / Intermediate*  
**JEREMY CLARK**  
**Thursday, June 13, 1:30 – 2:45pm**  
Delegates are waiting to make our code more flexible and extensible. We’ll take a look at what delegates are and dispel the mystery of the built-in Func and Action delegate types. Jumping into code, we’ll use them to make our classes more flexible and even use multi-casting to kick off a series of operations with a single call. Along the way, we’ll see that lambda expressions can add readability to our 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:  
- Understanding what delegates are  
- Using delegates for extensibility  
- Getting a handle on Func, Action, and lambda expressions

**TH20  I’ll Get Back to You: Task, Await, and Asynchronous Methods in C#**  
*Introductory / Intermediate*  
**JEREMY CLARK**  
**Thursday, June 13, 3:00 – 4:15pm**  
There’s a lot of confusion about async/await, Task/TPL, and asynchronous and parallel programming in general. So this session will start with the basics and look at how you can consume asynchronous methods using Task and then see how the “await” operator can make things easier. Along the way, you’ll look at continuations, cancellation, and exception handling.

You will learn:  
- How to consume asynchronous methods using Task (for flexibility) or await (for easy use)  
- How to handle exceptions that happen in asynchronous methods  
- About request and respond to cancellation

“ALL OF THE PRESENTERS I ATTENDED WERE FANTASTIC. THEY DID A GREAT JOB BALANCING THEIR CONTENT WITH QUESTIONS FROM THE AUDIENCE.”  
— Rix Foxx, City of Goodyear
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
- Angular
- TypeScript
- Angular routing
- JavaScript
- WebAssembly and Blazor
- Razor Pages
- Bootstrap 4
- Signal R
- Reactive Extensions
- ASP.NET Core security

SESSION DESCRIPTIONS BY TRACK (continued)

T01 Moving to ASP.NET Core 2.0

**Introductory / Intermediate**

**PHILIP JAPIKSE**

**Tuesday, June 11, 8:00 – 9:15am**

In this session, I show you how ASP.NET Core implements the Model View Controller pattern for Web Applications and the Model Controller pattern for Restful services. I cover convention over configuration, implementing Controllers and Action methods, Views (including partial views and layouts), Routing, and much more. This session is designed for developers new to the ASP.NET MVC and WebAPI frameworks.

You will learn:

- The ASP.NET Core MVC Implementation
- Routing, Controllers, Actions, Views
- Convention over Configuration

T05 Angular 101

**Introductory**

**DEBORAH KURATA**

**Tuesday, June 11, 9:30 – 10:45am**

This beginner-level session introduces the .NET developer to Angular, the very popular JavaScript framework for building client-side applications. We cover key building blocks such as modules, components, and templates. Come and get a quick start to building successful Web applications with Angular!

You will learn:

- Angular terms and concepts
- The basics of building an Angular application using the Angular CLI
- Angular’s data binding features and syntax

T09 N Things You Didn’t Know About the Router

**Intermediate**

**DEBORAH KURATA**

**Tuesday, June 11, 1:30 – 2:45pm**

This session explores the many facets of routing in an Angular application, and covers a lot of awesome yet practical techniques. With routing, we can define multiple routes, pass data to routes, preload data for our views, guard our routes, add a spinner, and even improve performance by asynchronously loading our routes.

You will learn:

- More sophisticated routing techniques
- How to leverage child routes
- How to improve startup performance with lazy loading

T13 TypeScript: The Future of Front End Web Development

**Intermediate / Advanced**

**BEN HOELTING**

**Tuesday, June 11, 3:00 – 4:15pm**

TypeScript is the real deal. Many developers have heard of TypeScript but most have never used it in production. Many C# developers hate JavaScript. I believe the reason for their hatred has nothing to do with JavaScript but with the lack of tooling and language features. TypeScript is a language developed by the creators of C# that compiles to JavaScript. This session will dive into TypeScript and discuss some of the language features it provides on top of normal JavaScript. Between the IDE enhancements in VS and the language features of TypeScript, you will see that JavaScript development can be fun!

You will learn:

- A definition of TypeScript
- New TypeScript Features in VS
- How to use VS and TypeScript to make production quality applications
W01 JavaScript Patterns for the C# Developer
Intermediate
BEN HOELTING
Wednesday, June 12, 8:00 – 9:15am
One of the biggest learning curves for C# developers trying to learn JavaScript is getting over the lack of language features available in JavaScript. Simple keywords like Namespace, Class and Interface are not currently available in JavaScript. So how do you create these things and do inheritance in JavaScript? After you attend this session you will know how. We will discuss some of the key differences between JavaScript and C#. Then we will discuss the Design Patterns used by experienced JavaScript developers to write large, maintainable and scalable applications.
You will learn:
- The key differences between JavaScript and C#
- The design patterns that are applicable to both C# and JavaScript
- The additional design patterns needed to write good JavaScript

W05 C# in the Browser with Blazor and WebAssembly
Intermediate
ROCKFORD LHOTKA
Wednesday, June 12, 9:30 – 10:45am
WebAssembly (wasm) is an important new browser capability that allows us to write web pages in languages other than JavaScript. For .NET developers it is exciting to know that we can use C# to write browser-based code. The experimental ASP.NET Blazor technology is a UI framework for creating web pages with C# and Razor syntax. If you are a web client developer interested in how wasm expands web development, or a smart-client developer looking for the next UWP/WPF/Windows Forms, but cross-platform and in the browser, then this technology is for you!
You will learn:
- How to build a smart-client browser-based app using Blazor
- How to share .NET Standard code on web server and in the browser
- How Razor syntax in the browser might be the smart client UI framework of the future

W09 Fast Focus: Getting Started with ASP.NET Core 2.0 Razor Pages
Introductory / Intermediate
WALT RITSCHER
Wednesday, June 12, 1:30 – 1:50pm
Razor Pages are a new feature of ASP.NET Core 2.0 that brings a simple page based development model to .NET Core. While they are similar to Razor Views in MVC, they have interesting differences. Essentially, they are the preferred way to generate server-side HTML content in the Microsoft MVC world.
This session explores how the Pages framework operates and how it fits into the standard ASP.NET Core MVC infrastructure. We’ll look at scenarios where Razor pages are a good choice and discuss when it is best stick with MVC. You’ll see how all your favorite concepts (like Model Binding, Validation, Filters, Routing and Action Results) work in this new system. And you’ll see how Razor pages simplify many common tasks when building basic web pages.
You will learn:
- Understand how Razor Pages fit into the ASP.NET MVC Core framework
- How to build a data and model driven site with Razor Pages
- How handlers work in Razor code

TH01 Upload and Store a File Using MVC
Introductory / Intermediate
PAUL SHERIFF
Thursday, June 13, 8:00 – 9:15am
Many web applications require the user to upload files. The HTML file input allows the user to select a file from their hard drive, but how do you then upload that file? What are the best practices? How can you limit the file size? How can you style the control to match the rest of your site? All of these questions and more will be answered in this step-by-step seminar on how to use the HTML file input control effectively.
You will learn:
- Style the HTML file input control
- Create a thumbnail of an uploaded image
- Store the uploaded file into a SQL Server table

TH05 Getting Pushy with SignalR and Reactive Extensions
Introductory
JIM WOOLEY
Thursday, June 13, 9:30 – 10:45am
As our systems increasingly demand more real-time updates, we need better ways of working with these live streams of information. Traditional pull models fail to provide the real-time responsiveness and scale needs that modern systems expect. Moving to a push model allows us to scale easier and react to new data as it becomes available. SignalR facilitates push notifications over HTTP to a variety of clients. The Reactive Extensions were designed to allow for asynchronous LINQ over push based collections. In this talk, you’ll see how the synergy of these two technologies merge to make otherwise difficult tasks, a push over.
You will learn:
• How to use SignalR to push streams of data over HTTP
• How to use Rx to simplify programming over streams of data
• How to combine SignalR and Rx to create elegant, maintainable coding APIs over otherwise complex real-time data streams

TH09 What’s New in Bootstrap 4
Introductory / Intermediate
PAUL SHERIFF
Thursday, June 13, 11:00am – 12:15pm
Bootstrap 4 has been recreated from the ground-up using CSS 3 features such as Flexbox. As such, it only supports the latest, stable releases of all major browsers. On Windows, this means only IE 10, 11 and Edge. Many of the old, familiar CSS classes are still available, but have been modified slightly in some cases. And, there are cases where things should be done a little differently. This course provides you with an overview of how to lay out your web pages using Bootstrap 4, while pointing out the differences from Bootstrap 3.
You will learn:
• Introduction to Bootstrap 4
• What’s different from Bootstrap 3
• New features in Bootstrap 4

TH13 Understanding ASP.NET Core Security
Advanced
ROLAND GUIJT
Thursday, June 13, 1:30- 2:45pm
In ASP.NET Core, Microsoft changed and overhauled many security features. This course will bring you up to speed to not only the news in ASP.NET Core and ASP.NET Core 2, but also what’s going on in the industry regarding web security.
During this workshop you’ll get the answers to the following questions:
- What must I do to mitigate common attacks on my ASP.NET Core website?
- How does encryption work in ASP.NET Core and how can I leverage that in my app?
- What kind of authentication options are there and how do they work?
- How and when do I implement ASP.NET Core Identity?
- What are OAuth2 and OpenIdConnect?
- How and when do I use the IdentityServer framework?
- What is the correct way to do authorization on my controllers? And where does authorization data come from?
Don’t make the mistakes many made before you: Don’t let security be an afterthought. It is a vital part to think about at the time you design your application architecture.
You will learn:
• Mitigate browser attacks
• Encrypt sensitive data in your app and protect developer secrets
• Apply authentication and authorization

TH17 When Azure AD is Not Enough: Creating a Token Service in ASP.NET Core 2.2
Advanced
ROLAND GUIJT
Thursday, June 13, 3:00- 4:15pm
A big change in terms of security in ASP.NET Core 2.2 is that Microsoft is including the capability to create your own token service that supports OpenIdConnect. It uses the well-established IdentityServer framework as the basis for that.
A token service enables you to do centralized authentication with single sign-on using industry standards just like Azure AD does. Azure AD is great as long as you don’t need customization beyond of what it offers. This is where creating your own comes in.
I’ll show you the ins and outs of creating the service but not before I make sure you understand the terminology around it. Once you get the basics we’ll get into beyond the basics mode and I’ll show you some of the other marvelous things that a custom token service brings.
After this session you’re ready to implement a token service in ASP.NET Core. And you will understand how to make use of the more advanced options.
You will learn:
• Understanding the whats and whys of an OpenIdConnect token service
• Use the built-in IdentityServer framework to create a custom one
• Further customize the token service implementing multi-tenancy

“EXCELLENT TOPICS, FORMAT AND SPEAKERS.”
— James Grooms, Engineering Software Solutions
CONFERENCE ADVISORY BOARD

Andrew Brust  
CEO and Founder, Blue Badge Insights  
Visual Studio Live! Conference Co-Chair

Andrew Brust is the founder and CEO of Blue Badge Insights. He advises data and analytics ISVs on winning in the market, solution providers on their service offerings, and customers on their analytics strategy. He writes about Big Data for ZDNet and co-chairs the Visual Studio Live! series of developer conferences. Andrew is an entrepreneur, a consulting veteran, a former analyst and research director, and a current Microsoft Regional Director and MVP. @andrewbrust

Michael Desmond  
Editor in Chief, MSDN Magazine

Michael Desmond is editor in chief of MSDN Magazine, Microsoft’s flagship publication for software developers working with Microsoft tools and technologies. A 20-year veteran of IT and technology publishing, Desmond was an editor at PC World magazine for six years before launching an editorial consultancy that worked for leading technology firms like IBM, Intel, and Sun Microsystems.

Rockford Lhotka  
CTO, Magenic  
Visual Studio Live! Conference Co-Chair

Rockford Lhotka is the CTO of Magenic, and the creator of the widely used CSLA .NET development framework. He is the author of numerous books on software development and regularly speaks at major conferences around the world. Rockford is a Microsoft Regional Director and MVP. His company Magenic (magenic.com) specializes in planning, designing, building, and maintaining an enterprise’s most mission critical systems. For more information, go to lhotka.net. @RockyLhotka

David Ramel  
Editor in Chief, Visual Studio Magazine and ADTMag.com

David Ramel is editor in chief of Visual Studio Magazine and Application Development Trends Magazine. He is an editor, writer and Web multimedia producer with 20 years of experience in mainstream journalism and within the information technology trade industry.

Brian Randell  
Partner, MCW Technologies  
Visual Studio Live! Conference Co-Chair

Brian A. Randell is a partner with MCW Technologies, LLC. For more than 20 years, he has been building software solutions. He educates teams on Microsoft technologies via writing and training—both in-person and on demand. He’s also a consultant for worldwide companies of all sizes including Fortune 100 companies like Microsoft. Brian is a passionate software craftsman who still enjoys coding as he helps teams to improve their processes from idea to shipping to production management and monitoring. He’s currently a Visual Studio MVP and co-author of “Professional Application Lifecycle Management with Visual Studio 2013” from Wrox Publishing. When he’s not working, Brian enjoys spending time with his wife and two children. @brianrandell

“I LEARNED MANY USEFUL PIECES OF TECHNOLOGY. I LEARNED A HANDBUL OF TECHNOLOGY TID-BITS I AM ABLE TO USE IMMEDIATELY.”

— Christopher Speirs
CONFERENCE SPEAKERS

Sam Basu  
Developer Advocate, Telerik  
Sam Basu is a technologist, author, speaker, Microsoft MVP, gadget-lover and Progress Developer Advocate for Telerik products. With a long developer background, he now spends much of his time advocating modern web/mobile/cloud development platforms on Microsoft/Telerik technology stacks. His spare times call for travel, fast cars, cricket and culinary adventures with the family. You can find him on the internet.

Jason Bock  
Practice Lead, Magenic  
Jason Bock is a practice lead for Magenic (http://www.magenic.com) and a Microsoft MVP (C#). He has more than 20 years of experience working on a number of business applications using a diverse set of frameworks and languages such as C#, .NET, and JavaScript. He is the author of “.NET Development Using the Compiler API,” “Metaprogramming in .NET,” and “Applied .NET Attributes.” He has written numerous articles on software development issues and presented at a number of conferences and user groups. He is a leader of the Twin Cities Code Camp (http://www.twincitiescodecamp.com). Jason holds a Master’s degree in Electrical Engineering from Marquette University. Visit his web site at http://www.jasonbock.net. @jasonbock

Eric D. Boyd  
Founder & CEO, responsiveX  
Eric D. Boyd is the founder and CEO of responsiveX, a Microsoft Azure MVP, a Microsoft Regional Director, a regular conference speaker, and the co-author of “Step-by-Step Azure SQL Database” from Microsoft Press. He is so passionate about cloud, mobile, and modern applications that he founded responsiveX (www.responsiveX.com), a technology company that helps customers deliver great web, mobile, and enterprise apps using the cloud and Azure. Eric launched his technology career almost two decades ago with a web development startup and has served in multiple roles since including developer, consultant, technology executive, and business owner. You can find Eric blogging at http://www.EricDBoyd.com and on Twitter at http://twitter.com/EricDBoyd.

Andrew Brust  
CEO and Founder, Blue Badge Insights  
Andrew Brust is the founder and CEO of Blue Badge Insights. He advises data and analytics ISVs on winning in the market, solution providers on their service offerings, and customers on their analytics strategy. He writes about Big Data for ZDNet and co-chairs the Visual Studio Live! series of developer conferences. Andrew is an entrepreneur, a consulting veteran, a former analyst and research director, and a current Microsoft Regional Director and MVP. @andrewbrust

Laurent Bugnion  
Senior Global Azure Advocate, Microsoft  
Laurent Bugnion currently works as senior global Azure advocate for Microsoft. He spent almost 10 years with IdentityMine and Valorem, two leading firms in using and deploying Microsoft technologies. He is one of the foremost experts for XAML and C# based development. He codes in Windows, WPF, Xamarin (iOS and Android), Unity, ASP.NET. In his free time, he writes for technical publications such as MSDN Magazine and his blog at blog.galasoft.ch. He is a frequent speaker at conferences such as Microsoft MIX, TechEd, Visual Studio Live!, TechDays and many other international events. Prior to joining Microsoft, he was a Microsoft Most Valuable Professional for Windows development from 2007 to 2017, a Microsoft Regional Director from 2013, and a Xamarin Most Valuable Professional from 2015. He is also the author of the well-known open source framework MVVM Light for Windows, WPF, Xamarin, and of the popular Pluralsight reference course about MVVM Light. @LBugnion

Miguel Castro  
President, Melvicorp LLC  
Miguel Castro is an architect, developer, and trainer with more than 30 years of experience in the software industry. He’s a Microsoft MVP for 12 years running, a Microsoft Regional Director, and a member of several of the Microsoft Insider groups. With a Microsoft background that goes all the way back to VB 1.0 (and QuickBasic in fact), Miguel speaks regularly at numerous user groups, code camps, and conferences in the U.S. and abroad. He has also been featured on several technology talk shows and is a PluralSight author. He specializes in architecture and development consulting and training with emphasis on Microsoft technologies. @miguelcastro67
Willy Ci
Sr. Front-end Developer, UMass Medical School

Willy Ci is a senior front-end developer with UMass medical school. For more than twenty years, he has worked with numerous cutting-edge technologies, such as Microsoft Hololens, Unity, 3D printing, and WebGL while following his passion for creating innovative solutions in a quickly evolving space. Willy graduated from UMass Amherst, was trained by IBM, molded by few startups, and ended up with UMass medical school. Willy is passionate about panorama photography, creating VR/AR applications, loves to try out new things, he has lots of ideas, and never has enough time to sleep. Follow Willy through his website at http://FlexCode.org/ and Twitter @Willy_Ci.

Jeremy Clark
Developer Educator

Jeremy Clark makes developers better. By drawing on more than 15 years of experience in application development, he helps developers take a step up in their skillset with a focus on making complex topics approachable regardless of skill level. He is a Microsoft MVP for .NET, and has authored seven courses for Pluralsight, including “C# Interfaces,” a course aimed at giving developers a clear understanding of abstraction. He loves speaking and has delivered more than 200 technical presentations in the last eight years throughout the United States and Europe. Jeremy lives in the northwestern United States with his lovely partner, two dogs, two cats, and a banjo. @jeremybytes

Roy Cornelissen
Lead Consultant, Xpirit

Roy Cornelissen is a total foodie with serious cooking skills, a leisure guitar player, aspiring graphic artist, and a professional mobile and distributed software architect with a healthy allergy for over-engineering—in that order. At Xpirit, he helps customers make the most out of their digital innovation platform using modern mobile technologies. Roy has a strong focus on Xamarin and NServiceBus technologies. @roycornelissen

Benjamin Day
Consultant / Trainer

Benjamin Day is a consultant and trainer specializing in software best practices using Scrum with Microsoft’s DevOps tools. Ben’s main areas of emphasis include Team Foundation Server, Scrum, software testing, and software architecture. He is a Microsoft Visual Studio ALM MVP, a certified Scrum trainer via Scrum.org, and a speaker at conferences such as TechEd and Visual Studio Live! When not developing software, Ben’s been known to go running and sea kayaking in order to balance out his love of cheese, cured meats, and champagne. He can be contacted via http://www.benday.com, @benday

Marcel de Vries
CTO, Xpirit

Marcel is the co-founder and CTO of Xpirit, a high-end consulting firm based in Hilversum, Netherlands. Marcel co-founded Xpirit in 2014 as a spin off from Xebia, which is also in the Netherlands. Together with Xebia, they help customers with digital transformation, agile consulting, and full stack development with both Microsoft and open source products. Marcel spends most of his time looking at how new emerging technologies, a shift in mindset, and a new way of work can help organizations get software in production faster. Helping organizations transform towards a high speed, innovative, and productive organization has become his passion. Marcel loves to learn new technologies and teach others what he has learned. Besides his work as CTO, he also works as a consultant in the field of application lifecycle management (ALM), continuous delivery, DevOps, cloud/web scale application architectures, and cross-platform enterprise mobile app development with Xamarin. Marcel is a frequent speaker at leading industry conferences. He has delivered sessions at events like Microsoft //Build, Microsoft TechDays, Visual Studio Live!, Xebicon, and Techorama to name a few. He hosts several meetups in his region on Microsoft Azure, Xamarin, and ALM. In his spare time, he builds online courses for Pluralsight. Marcel has been awarded by Microsoft the Microsoft ALM MVP award for more than 10 consecutive years and has been a Microsoft Regional Director since 2008. You can always contact him to talk about subjects like DevOps, ALM, Cloud Computing, Microservices, Mobile Development, Docker, IaaS, PaaS, and SaaS. @marcelv

Mickey Gousset
DevOps Architect, Microsoft

Mickey Gousset is a DevOps Architect at Microsoft. He was formerly a Microsoft Visual Studio and Development Technologies MVP (for 13 years). Mickey has been lead author of several books, including “Professional Application Lifecycle Management with Visual Studio 2013” from Wrox Publishing. He is very passionate about DevOps and the cloud, and speaks on DevOps and Cloud topics at various user groups, code camps, and conferences around the world. Learn more about Mickey at http://mickeygousset.com, @mickey_gousset
Robert Green
Program Manager, Evangelism, Microsoft

Robert Green is a Program Manager Evangelism in the Developer Experience and Evangelism (DX) group at Microsoft. He focuses on Visual Studio and mobile development. Robert is the host of the Visual Studio Toolbox show on Channel 9. @rsgreen_ms

Roland Guijt
Microsoft MVP, Trainer

Roland is a Microsoft MVP enjoying a constant curiosity around new techniques in software development. His focus is on all things .NET and browser technologies. As a long-time trainer, he led many courses on these topics and spoke about them at international conferences. He also travels around the globe to offer his self-developed workshops and is a popular Pluralsight author. The word that comes to mind when he thinks about software development is passion!

Ben Hoelting
Development Manager, Ent Credit Union

Ben Hoelting is an experienced full stack web developer and Microsoft MVP for .NET Technologies. His skills include: JavaScript, Angular, Bootstrap, HTML, CSS, C#, ASP.NET, MVC, WebAPI, WCF, and Sitecore CMS. He is a Sitecore Certified Developer and an MCPD. He has also done some work with hybrid mobile applications using Cordova and Phone Gap. He graduated from Colorado State University in 1997 with a BS in Computer Information Systems and a Minor in Computer Science. Ben joined the IT industry in 1996 as an intern and has worked with .NET since its inception back in 2001. This has given him the experience of a senior level full stack .NET developer. For the past 10 years he has been awarded as a Microsoft MVP for .NET Technologies. The MVP award is given to professionals that are involved in the software development community. He is the leader of the South Colorado .NET Meetup. He also presents on software development topics around Colorado and the country. @benhnet

Billy Hollis
XAML slinger

Billy Hollis is a software designer and developer with a contrarian streak that often challenges conventional wisdom in the industry. He has a consulting practice in Nashville, Tennessee. He and his team focus on user experience design (UX), advanced user interface development, rules-based architectures, and healthcare systems. He teaches design classes for UX and technical classes on XAML for the Universal Windows Platform and XAML for WPF. @billyhollis

Laura B. Janusek
Chief Product Officer, Modern Teacher

As a founding team member at Modern Teacher, Laura has held several roles. She’s currently the Chief Product Officer, focusing on the design and development of the company’s software solutions. In collaboration with the CEO, she defines Modern Teacher’s current and upcoming product offerings and uses client feedback to oversee the development lifecycle, from ideation through live releases and enhancements. Laura leads the development and quality assurance teams, which have included both U.S.-based and nearshore developers. She has also managed Modern Teacher’s professional learning content creation team, including graphic and e-learning designers.

Laura also acted as VP of Curriculum and VP of Client Experience with digEdU, The Digital Education Company, leading a team of over 40 digital content creators and overseeing client relationships nationally. Prior to her work in EdTech, Laura was involved with a variety of educational organizations, teaching in both Special Education and English departments as well as nontraditional learning environments.

Laura enjoys practicing yoga, playing violin, and listening to audiobooks. She is an active member of communities for women in technology, she has recently been recognized in a series on “Women on Top in Tech”, and she is passionate about education equity and technology’s ability to improve lives in the education space and beyond.

Philip Japikse
Developer, Coach, Author, Teacher

An international speaker, Microsoft MVP, ASPInsider, MCSD, CSM, and CSP, and a passionate member of the developer community, Phil Japikse has been working with .NET since the first betas. He has been developing software for more than 30 years and has been heavily involved in the agile community since 2005. Phil is co-author of the best-selling “C# and the .NET 4.6 Framework” (http://bit.ly/pro_csharp), the lead director for the Cincinnati .NET User’s Group (http://www.cinnug.org) and Cincinnati Software Architect Group, co-hosts the Hallway Conversations podcast (http://www.hallwayconversations.com), founded the Cincinnati Day of Agile (http://www.dayofagile.org), and volunteers for the National Ski Patrol. Phil is also a published author with LinkedIn Learning. During the day, Phil works as an enterprise consultant and agile coach for large to medium firms throughout the U.S. Phil enjoys to learn new technology and is always striving to improve his craft. Follow Phil on twitter via http://www.twitter.com/skimedic and read his blog at http://www.skimednic.com/blog. @skimednic
Veronika Kolesnikova
Developer, Rightpoint

Veronika Kolesnikova is passionate about backend web development, mainly with Microsoft technologies like C#, .NET, SQL, and Azure. She loves to learn new development tools and languages and share that knowledge with the community. She recently started working with Xamarin and can’t wait to provide her insights. In 2016, Veronika graduated with a MS degree in Information Technology. In her free time, she likes dancing, traveling, and practicing aerial yoga.

Deborah Kurata
Microsoft MVP and Google Developer Expert

Deborah Kurata is a software developer, speaker and Pluralsight author with a focus on Angular and C#. For her work in support of software development and software developers, she has been recognized with the Microsoft Most Valuable Professional (MVP) award and is a Google Developer Expert (GDE). Follow her on twitter: @deborahkurata

Vishwas Lele
CTO, Applied Information Sciences

Vishwas Lele serves as CTO at Applied Information Sciences, Inc. He is responsible for assisting organizations in envisioning, designing and implementing enterprise solutions related cloud and mobility. Lele brings close to 28 years of experience and thought leadership to his position, and has been with AIS for 23 years. A noted industry speaker and author, he serves as the Microsoft Regional Director for Washington D.C. and is currently an Azure MVP.

Rockford Lhotka
CTO, Magenic

Rockford Lhotka is the CTO of Magenic, and the creator of the widely used CSLA .NET development framework. He is the author of numerous books on software development and regularly speaks at major conferences around the world.

Leonard Lobel
CTO, Sleek Technologies, Inc.

Leonard Lobel is the chief technology officer and co-founder of Sleek Technologies, a New York-based development shop with an early adopter philosophy toward new technologies. He is also a principal consultant at Tallan, a Microsoft National Systems Integrator and Gold Competency Partner. He is also a Microsoft MVP, Data Platform. Programming since 1979, Lenni specializes in Microsoft-based solutions, with experience that spans a variety of business domains, including publishing, financial, wholesale/retail, health care, and e-commerce. Lenni has served as chief architect and lead developer for various organizations, ranging from small shops to high-profile clients. He is also a consultant, trainer, and frequent speaker at local usergroup meetings, VSLive!, Live! 360, SQL PASS, and other industry conferences. Lenni has also authored several MS Press books and Pluralsight courses on SQL Server programming. @lennilobel

Ted Neward
Principal, Neward & Associates, LLC.

Ted is a Principal at Neward & Associates, LLC, helping companies figure out the intersection of people, process and technology since 1999. He’s been at every level in the organizational tree—from software engineer up through architect, Director, and CTO—for companies ranging from sweat-equity startups to IPO-success startups to companies who’ve been public for decades. He’s written dozens of books and hundreds of articles on Java, .NET, Javascript, iOS and Android, including a monthly column in MSDN Magazine entitled ‘The Working Programmer’. He lives in the Pacific Northwest with his wife, sons, three cats, seven smartphones, eight tablets, five laptops, and a serious electric bill. @tedneward

Oren Novotny
Chief Architect, DevOps & Modern Software, Insight

Oren is Chief Architect, DevOps & Modern Software at Insight and a Microsoft Regional Director. He is passionate about reducing friction in the development process and creating modern software solutions to solve complex business challenges. Named a Microsoft MVP for Windows Platform Development in 2014, Microsoft MVP for Visual Studio and Development Technologies in 2016, Xamarin MVP in 2016, and member of the .NET Foundation Advisory Council in 2017, he has been writing code on the Microsoft platform since the days a 2400 baud modem was considered cutting-edge. His prior experience ranges from building identity solutions for global organizations, developing real-time trading systems dealing with massive amounts of data to the complex data models of equity derivatives and the regulatory needs of Medicaid claims processing. He believes that technology is meaningless in a vacuum and strives to show how the bleeding-edge delivers superior value to the clients’ bottom line. @onovotny
CONFERENCE SPEAKERS (continued)

Tim O’Brien
General Manager, AI Programs, Microsoft

Tim leads Ethical AI Advocacy at Microsoft and is responsible for programs to drive and promote responsible development and use of technology, inclusive of public policy and the ethics of artificial intelligence. As part of this role, Tim conducts research focused on ethical use of AI across geographies and cultures.

Tim is also a Guest Lecturer at INSEAD, one of the world’s leading business schools, where he speaks on cross-cultural leadership and ethics.

Prior to this role, Tim led the Global Communications group for Microsoft, managing communications strategy and operations in over 90 countries around the world, and the Platform Strategy team, where he was responsible for technical evangelism to drive developer adoption of Microsoft platforms and services.

Before joining Microsoft in 2003, Tim worked as an engineer, a marketer and a consultant at both startups and Fortune 500 companies. He has over 25 years of experience in the tech industry.

Tiago Pascoal
DevOps Architect, Microsoft

Tiago Pascoal is a DevOps Architect in the Microsoft’s DevOps Customer Advisory team and has been an ALM | DevOps Ranger since 2008. With over 18 years’ experience in the software development field, started his career on an ISV developing a web application server on multi-platform systems, enabling people to write software that worked on both Un*x and Windows platforms. Before joining Microsoft, Tiago was awarded the Microsoft MVP Award in Visual Studio and Development Technologies category for ten consecutive years and worked both as a consultant and as managing partner in several companies. Most of his career was spent in the financial, telecommunications industries and public sector.

Brian Randell
Partner, MCW Technologies

Brian A. Randell is a partner with MCW Technologies, LLC. For more than 20 years, he has been building software solutions. He educates teams on Microsoft technologies via writing and training—both in-person and on demand. He’s also a consultant for worldwide companies of all sizes including Fortune 100 companies like Microsoft. Brian is a passionate software craftsman who still enjoys coding as he helps teams to improve their processes from idea to shipping to production management and monitoring. He’s currently a Visual Studio MVP and co-author of “Professional Application Lifecycle Management with Visual Studio 2013” from Wrox Publishing. When he’s not working, Brian enjoys spending time with his wife and two children. @brianrandell

Walt Ritscher
Senior Staff Instructor, LinkedIn Learning / Lynda

Walt’s enthusiasm for crafting software interfaces blossomed early. Just a few days after discovering how to move pixels around a computer screen he was devouring books on the topic of computer graphics and UI design. Before long he was sharing his discoveries with other technology buffs, a lifelong pursuit that has led to teaching engagements at universities, private training companies and the international conference circuit. As a consultant, he has worked with a wide spectrum of clients, including Microsoft, HP, and Intel. He is now a staff author at Lynda.com, part of the LinkedIn family, where his content team produces technical training courses for software developers. @waltritscher

Jim Wooley
Solution Architect, Slalom Consulting

Jim Wooley is a Solution Architect for Slalom Consulting. In his free time, Jim is a frequent speaker, MVP, and author of “LINQ in Action”. He is always striving to stay at the forefront of technology and enjoys the thrill of a new challenge. He has been active evangelizing LINQ since its announcement in 2005. In addition, he attempts to pass on the insights he has gained by being active in the community, including organizing and speaking at code camps and regional events, including MIX, Visual Studio Live!, CodeMash, KCDC, That Conference, DevWeek, and CodeStock. @Jimwooley

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VENUE & TRAVEL

TRAVEL

TRAVEL BY AIR
The nearest airport is Boston Logan International Airport (BOS), 8.3 miles from the Hyatt Regency Cambridge. For complete information about flights visit the airport website.

TRAVEL BY TRAIN
Amtrak serves three Boston train stations: South Station, North Station, and Back Bay Station. See below for Public Transport and Shuttles. Public transport will cost under $5 one way.

TRAVEL BY BUS
Numerous regional bus companies serve Boston, arriving at North Station, South Station, and Back Bay Station. (You can compare routes and prices at https://www.wanderu.com).

GROUND TRANSPORTATION & SHUTTLE SERVICE
Taxi Service
A typical fare between Logan Airport and the Hyatt Regency Cambridge will be between $45.00 and $55.00, plus tip (may vary from company to company - check with driver first).

Public Transportation
Take the Silver Line bus (departs Terminal E) to South Station (about 15 minutes depending on traffic). Change to the Red Line (subway), outbound, to Kendall/MIT Station (about 8 minutes). Change to the CT2 Ruggles bus (departs Main St. and Kendall Station) and get off at Amesbury St. and Vassar St. (about a 4-minute ride). Walk for 2 minutes to hotel. Total fare: $4.75. Plan your trip here.

Avis Rent-a-Car
Avis Rent-a-Car is offering a discount on car rental for Visual Studio Live! Boston attendees. To receive the discounted rates, call Avis at 800.331.1600 and use the Avis Worldwide Discount (AWD) number D005872, or click here to make your reservation online.

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Shuttle Pick Up Locations:
- Kendall Square: In front of Chipotle on Main St.
- Harvard Square: On Dunster St. in front of Mike’s Pastry.
- Kenmore Square: In front of Bruegger’s Bagels on Beacon St.
- Cambridge Side Galleria: Across the street from Cheesecake Factory.

Daily 7:00AM - 8:45PM. For shuttle pick up please call 617-492-1234

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*Parking rates are subject to change without notice.

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**NEW – ADD THE VSLIVE! CONFERENCE ON-DEMAND PACKAGE**
New to Visual Studio Live! in 2019, you can now extend your learning with on-demand access to all of the recorded content from the VSLive! Boston sessions (does not include workshops or hands-on labs) taking place Tuesday, June 11 – Thursday, June 13. The VSLive! On-Demand Content Package gives you access to all sessions and keynotes after the conference ends for one full year.

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