Nashville

MAY 15-19, 2023
RENAISSANCE NASHVILLE HOTEL
NASHVILLE, TN

IN-DEPTH TECHNICAL CONTENT ON:
- DevOps and Beyond
- Cloud, Containers and Microservices
- AI, Data and Machine Learning
- Developing New Experiences
- Technical Excellence & Leadership Skills
- The Core of .NET
- Full Stack Web Development

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VSLIVE.COM/NASHVILLE
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12 DevOps and Beyond
13 Cloud, Containers and Microservices
14 AI, Data and Machine Learning
15 Developing New Experiences
16 Technical Excellence & Leadership Skills
17 The Core of .NET
19 Full Stack Web Development

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A MESSAGE FROM THE CONFERENCE CO-CHAIRS

AFTER MORE THAN 30 YEARS OF DELIVERING GREAT, in-depth, technical content all over the US—as well as events in Europe, Asia, and Australia—VSLive! is coming to Music City, May 15 to 19, 2023! From honky-tonks with live music to the Johnny Cash Museum, and the “Grand Ole Opry”, Nashville, TN, has you covered with great entertainment and things to see. As the home of Vanderbilt University, Nashville is a great city for VSLive! to bring developers and their friends, cutting edge education.

We’re Andrew Brust, Angela Dugan, Rockford Lhotka, and Brian Randell, and as Conference Co-Chairs for Visual Studio Live! Nashville, we’d like to personally invite you to join us at the Renaissance Hotel in Nashville, TN. 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. The rapid pace of change means there’s more you need to know. Our cohort of technical speakers will be ready to help you know what’s ready, what’s not, and provide their expert advice and knowledge on how to build the best solutions for your customers.

Visual Studio Live! Nashville gives you a rich, multi-track event with great 75-minute breakout sessions, 150-minute-deep dives, a full day of hands-on-lab training, and an all-day set of workshops that cover a wide array of development technologies for everyone on your team. We have picked every hands-on-lab, workshop, deep dive, 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.

Kicking off the week, we’ve got two great, all-day, hands-on-labs covering Web Development with ASP.NET Core and EF Core, and the Human Side of Agile and DevOps. During the next three days of the week, we have a couple of deep dives into .NET Maui and Web Services with ASP.NET Core. And at the end of the week, we have all-day seminars providing deep coverage of Shipping Faster & More Securely with Azure PaaS, SQL Server Developer Deep Dive, and full day diving into Microsoft Blazor Top to Bottom. The goal of these hands-on labs, workshops, and deep dive sessions is to go further into the subjects you need to master to give you the edge in your job and to help your companies build better apps.

However, sometimes you need broader coverage of different products and processes. We’ve got you covered there with fresh coverage on Microsoft Visual Studio 2022, .NET 6 and .NET 7, container technologies, DevOps, and data visualization and analysis. If the Web is more your style, you’ll find coverage of JavaScript, TypeScript, Angular, RxJS, and Blazor, as well as ASP.NET and ASP.NET Core on the server.

But what if you want to improve the quality of your software? Mystified as to how you can bring DevOps to your organization? Are you looking to enhance the culture of your team? We’re confident that our speakers will answer your questions with practical guidance on all these, plus mobile development, database development, and more.

Our industry continues the march toward the future. To keep up, you need to absorb rapidly and adapt. Go beyond Internet-based content to return to a live experience, where you get to ask questions in real-time and engage directly with the experts and your peers. Find a way to get to Visual Studio Live! Nashville and get the tools to help yourself grow. All this learning means you’ll gain an appetite to learn more as well as get out and have some “hot chicken” and maybe a local whiskey if you choose.

We hope to see you there!

VISUAL STUDIO LIVE! CONFERENCE CO-CHAIRS

Andrew Brust
Founder & CEO, Blue Badge Insights

Angela Dugan
Solutions Director, 3Cloud Solutions

Rockford Lhotka
VP of Strategy, Xpirit

Brian Randell
Product Marketing Director, GitHub
10 REASONS TO ATTEND VISUAL STUDIO LIVE! 2023

10 BACK BY POPULAR DEMAND: HANDS-ON LEARNING. AGAIN, at VSLive! This year there's another full day of learning with the Monday 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 .NET 6 & 7 and .NET MAUI, Blazor, ASP.NET Core, ML.NET, Microservices, SQL Server 2022, C#, Azure, and so much more....

8 RESPECT THE PAST; CODE THE FUTURE. 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 BE READY FOR NOW & NEXT. Get up to speed on what’s happening on the .NET developer landscape now, and learn what’s coming next to get out ahead of the competition. Keep yourself and your business competitive and future-ready with training on Microsoft Visual Studio 2022, .NET 6, DevOps, MAUI, JavaScript, TypeScript, Angular, Blazor, modern data warehouse technology, and so much more....

3 IT’S MUSIC CITY! Code by day and enjoy all the live music, nightlife, delicious cuisine, and southern hospitality Nashville has to offer at our headquarters in the heart of downtown, the Renaissance.

2 THE CHOICE IS YOURS. With so many sessions, workshops, and hands-on labs 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 30 YEARS OF CODING INNOVATION! For over 30 years, Visual Studio Live! (VSLive!) has been THE trusted resource for .NET developer-focused education and training! We are proud to have served tens of thousands, giving them the training and education they’ve needed since 1993.

“I PARTICULARLY LIKED THE DIVERSITY OF OPTIONS FOR EACH TIMESLOT. I FOUND MYSELF MORE OFTEN WISHING I COULD ATTEND TWO SESSIONS AT ONCE RATHER THAN STRUGGLING TO FIND INTEREST IN ONE.”

– VSLive! Austin 2022 Attendee
THE FUN STUFF: VISUAL STUDIO LIVE! NASHVILLE EVENTS & ACTIVITIES

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

MIX & MINGLE
Monday, May 15
This is your opportunity to meet fellow attendees and start friendships that can last for the week or even longer. Join us to mix and mingle with other conference attendees and speakers for a casual no-host mixer. Enjoy light appetizers provided by VSLive! while you get to know your fellow attendees and take in the exciting Nashville views. Everyone is responsible for their own beverages.

WELCOME RECEPTION & TRIVIA NIGHT
Tuesday, May 16
Enjoy drinks and snacks while you relax, unwind, and network with fellow attendees and speakers after a long day of learning.
Test your knowledge against your fellow attendees with VSLive! Trivia Fun! Everyone can join in by using their mobile device. Each round winner will receive a prize along with bragging rights for the week!

TABLE TOPIC LUNCH
Wednesday, May 17
Join other attendees at lunch to share ideas, talk about the issues of the day, and maybe solve a few. While you enjoy lunch, you can find and connect with other like-minded people at tables designated for certain languages, technologies, and interests.
We will also have designated speaker tables - noted with the speakers’ name. Join your favorite speaker for a lunchtime discussion or to follow up on any questions from a session.

VSLIVE!’S MUSIC CITY TROLLEY TOUR
Wednesday, May 17, 6:15pm - 8:00pm
Pre-registration & $10 Confirmation Fee Required
See Nashville’s famous sights and hear about its history when you hop aboard Old Town Trolley Tour’s VSLive! Music City Tour for a picturesque evening you won’t forget! You’ll take in breathtaking views of the city and cruise past notable landmarks, experiencing them like you never have before. Your 90-minute tour will explore the sites that make this world class city one of the top visited places in the United States, including Nissan Stadium, Historic 2nd Avenue, Wildhorse Saloon, the Ryman Auditorium, the historic Arcade, Woolworth’s where the late Rep. John Lewis participated in the civil rights sit-in’s, Music City Walk of Fame, Country Music Hall of Fame, TN State Capitol, Bi-Centennial Mall State Park designed with Tennessee history, Marathon Motorworks, Antique Archeology store from the American Pickers tv show, The Parthenon at Centennial Park, Belmont Mansion, Music Row, and more.
Your knowledgeable Tour Conductor will provide information and stories about all the places you’ll see. Hop aboard for a night out in Nashville with VSLive!

YOUR ATTENDANCE AT VISUAL STUDIO LIVE! is about learning from your peers as well as the experts; make the most of your time with us and add these events and activities to your itinerary!
# AGENDA-AT-A-GLANCE

## Visual Studio Live! Pre-Conference Hands-On Labs: Monday, May 15, 2023

**Pre-Conference Hands-On Labs Registration • Coffee and Morning Pastries**

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Session Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>9:00 AM</td>
<td><strong>HOL01</strong> Hands-On Lab: Develop an ASP.NET Core App with EF Core in a Day</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>6:00 PM</td>
<td>- Jeffrey T. Fritz</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>8:00 PM</td>
<td><strong>Mix &amp; Mingle @ VSLive!</strong></td>
</tr>
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</table>

## Visual Studio Live! Day 1: Tuesday, May 16, 2023

**Registration • Coffee and Morning Pastries**

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Session Description</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>8:00 AM</td>
<td><strong>T01</strong> Getting Up and Running with Modern Angular</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>- Allen Conway</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>T05</strong> RxJS in Angular: Working with Data</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>- Deborah Kurata</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td><strong>T09</strong> Introduction to Blazor - Rockford Lhotka</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td><strong>T10</strong> Deep Dive with MAUI - Sam Basu</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>2:45 PM</td>
<td><strong>T13</strong> Beyond the Basics – Building Fast and Reusable Code with Blazor</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>4:15 PM</td>
<td>- Jeffrey T. Fritz</td>
</tr>
<tr>
<td>4:15 PM</td>
<td>5:30 PM</td>
<td><strong>Welcome Reception</strong></td>
</tr>
</tbody>
</table>

**KEYNOTE: TO BE ANNOUNCED**

*Paul Yuknewicz, Principal Group Product Manager, Microsoft*

- Lunch
- Dessert Break • Visit Exhibitors
- **T12** DevOps is Dead, Long Live DevOps! - Brian Randell
- **T14** Use OpenAPI to Document and Generate Your Services and Clients - Jon Flanders
- **T15** GitHub Actions - Soup to Nuts - Mickey Gousset

Sessions and speakers subject to change.
### Visual Studio Live! Day 2: Wednesday, May 17, 2023

<table>
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<tr>
<th>START TIME</th>
<th>END TIME</th>
<th>SESSIONS</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>8:00 AM</td>
<td>Registration • Coffee and Morning Pastries</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W01 ASP.NET Basics for Experts - Layla Porter</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W02 Bringing the Web to Native Applications with Blazor Hybrid - Jeffrey T. Fritz</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W03 Busy Developer's Guide to Auth-n-Auth - Ted Neward</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W04 I Love YAML: Using Azure DevOps to Build and Release to Azure - Benjamin Day</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W05 Building Enterprise Blazor Apps Using CSLA .NET - Rockford Lhotka</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W06 Busy Developer's Guide to Flutter - Ted Neward</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W07 Power BI and Azure Databricks SQL BI on Big Data for Real - Andrew Brust</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td>W08 Dependencies Demystified - Jason Bock</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W09 Fast Focus: JavaScript Framework/Library Showdown - Allen Conway</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W10 Fast Focus: Power BI Metrics: Managing KPIs and Scorecards for Yourself and Your Team - Andrew Brust</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W11 Fast Focus: Getting .NET Interactive Notebooks - Jason Bock</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W12 Fast Focus: Using Blazor in MAUI - Rockford Lhotka</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W13 Fast Focus: What Manifests are These? - Mike Benkovich</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td>W14 Fast Focus: WTF UX - UX Research and Design AMA - Debbie Levitt</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>12:00 PM</td>
<td>GENERAL SESSION: LIES DEVELOPERS TELL THEMSELVES - Billy Hollis, Developer. Designer. Speaker. Author.</td>
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<tr>
<td>12:00 PM</td>
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<td>Table Topic Lunch</td>
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<tr>
<td>12:00 PM</td>
<td>1:00 PM</td>
<td>Dessert Break • Visit Exhibitors</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td>W15 TypeScript: Moving Beyond the Basics - Allen Conway</td>
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<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td>W16 Improving Agility by Using Customers’ Definitions of “Quality” and “Done” - Debbie Levitt</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>1:30 PM</td>
<td>W17 From Core to Containers to Orchestration - Modernizing my Compute - Mike Benkovich</td>
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<td>1:00 PM</td>
<td>1:30 PM</td>
<td>W18 GitHub Actions: beyond CI/CD - Rob Bos</td>
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<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W19 What's New in .NET 7 APIs - Jason Bock</td>
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<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W20 How to Fix a Failing Project - Benjamin Day</td>
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<tr>
<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W21 An Infrastructure as Code Bake-off, Comparing ARM, Terraform, and Bicep - Mike Benkovich</td>
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<td>2:00 PM</td>
<td>2:20 PM</td>
<td>W22 Protect Yourself Against Supply Chain Attacks - Rob Bos</td>
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<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>W23 From Core to Containers to Orchestration - Modernizing my Compute - Mike Benkovich</td>
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<tr>
<td>2:30 PM</td>
<td>3:45 PM</td>
<td>W24 GitHub Actions: beyond CI/CD - Rob Bos</td>
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<td>W25 What's New in .NET 7 APIs - Jason Bock</td>
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<td>4:00 PM</td>
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<td>W26 How to Fix a Failing Project - Benjamin Day</td>
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<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W27 An Infrastructure as Code Bake-off, Comparing ARM, Terraform, and Bicep - Mike Benkovich</td>
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<tr>
<td>4:00 PM</td>
<td>5:15 PM</td>
<td>W28 Protect Yourself Against Supply Chain Attacks - Rob Bos</td>
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<td>6:15 PM</td>
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<td>VSLive’s Music City Trolley Tour - Pre-registration &amp; $10 Confirmation Fee Required</td>
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Sessions and speakers subject to change.

Additional topics include:
- DevOps and Beyond
- Cloud, Containers and Microservices
- AI, Data and Machine Learning
- Developing New Experiences
- Technical Excellence & Leadership Skills
- The Core of .NET
- Full Stack Web Development
**AGENDA-AT-A-GLANCE (continued)**

| Sessions and speakers subject to change. |

### Visual Studio Live! Day 3: Thursday, May 18, 2023

<table>
<thead>
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<th>END TIME</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>7:30 AM</td>
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<td>Registration</td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>9:15 AM</td>
<td><strong>TH01</strong> Deep Dive: Web Services with ASP.NET Core</td>
<td>Philip Japikse</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>10:45 AM</td>
<td><strong>TH02</strong> Building Cloud-Ready Applications in .NET</td>
<td>Layla Porter</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>12:15 PM</td>
<td><strong>TH03</strong> Responsible AI</td>
<td>Veronika Kolesnikova</td>
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<tr>
<td>12:15 PM</td>
<td>1:15 PM</td>
<td>Lunch</td>
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<tr>
<td>1:15 PM</td>
<td>2:30 PM</td>
<td><strong>TH04</strong> How to Increase Innovative Problem Solving in Teams</td>
<td>Amber Vanderburg</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td><strong>TH05</strong> Protect your Code with GitHub Security Features</td>
<td>Rob Bos</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td><strong>TH06</strong> Building Event-Driven Microservices with the Azure Cosmos DB Change Feed</td>
<td>Leonard Lobel</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>4:00 PM</td>
<td><strong>TH07</strong> Advanced OOP - Laws, Patterns &amp; Idioms</td>
<td>Clint Edmonson</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH08</strong> Is there ML.NET in MAUI?</td>
<td>Veronika Kolesnikova</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH09</strong> Entity Framework Performance Monitoring and Tuning</td>
<td>Jim Wooley</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH10</strong> What's New for Developers in SQL Server 2022</td>
<td>Leonard Lobel</td>
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<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH11</strong> Data Driven Decision Making</td>
<td>Amber Vanderburg</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH12</strong> Practical Internet of Things for the Microsoft Developer</td>
<td>Eric D. Boyd</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH13</strong> Too Late for TDD? Start Test Eventually Development Now</td>
<td>Jim Wooley</td>
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<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH14</strong> Getting Your Story Straight with Data Visualizations</td>
<td>Stacia Varga</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH15</strong> Getting Started with Design Thinking: A Guide For Developers and Managers</td>
<td>Billy Hollis</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH16</strong> Create Intelligent Bots with the Power Platform, Azure, and Cognitive Services</td>
<td>Eric D. Boyd</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH17</strong> Flow, the Universe and Everything</td>
<td>Clint Edmonson</td>
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<tr>
<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH18</strong> Making the Leap from Reporting to Data Analysis</td>
<td>Stacia Varga</td>
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<td>3:15 PM</td>
<td>5:00 PM</td>
<td><strong>TH19</strong> Measuring Up! How To Choose Agile Metrics Your Team Won’t Hate</td>
<td>Angela Dugan</td>
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### Visual Studio Live! Post-Conference Workshops: Friday, May 19, 2023

<table>
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<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>F01</strong> Workshop: Ship Faster, More Securely with Azure PaaS</td>
<td>Brian Randell &amp; Mickey Gousset</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>F02</strong> Workshop: Microsoft Blazor Top to Bottom</td>
<td>Jason Bock, Allen Conway &amp; Rockford Lhotka</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>5:00 PM</td>
<td><strong>F03</strong> Workshop: SQL Server Developer Dive</td>
<td>Leonard Lobel</td>
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</table>
KEYNOTE SESSIONS

WANT A FRONT-ROW SEAT TO THE FUTURE OF TECHNOLOGY? Attend the keynote & general session for Visual Studio Live! Nashville to learn what's hot on today's tech landscape and what exciting developments lie ahead for this year and beyond.

TUESDAY KEYNOTE

To Be Announced
Tuesday, May 16, 11:00am – 12:00pm

Paul Yuknewicz
Principal Group Product Manager, Microsoft

Details to be announced.

WEDNESDAY GENERAL SESSION

Lies Developers Tell Themselves
Wednesday, May 17, 11:00am – 12:00pm

Billy Hollis

All humans sometimes deceive themselves, and developers are no exception. From “I can get this done in a week” to “My job is to write code”, developers often convince themselves of things that are only partially true - or even outright ridiculous.

These seductive-but-false notions are factors in everything from poor software quality to unnecessary stress on developers and other team members. In this session, developer/architect Billy Hollis will bring out his top ten uncomfortable truths about software development, with some humor to make them easier to hear.

You will learn:
• See the top uncomfortable truths developers sometimes don’t want to face
• Ways to avoid fooling oneself during software development
• Have some fun exploring some of the foolish things developers do

“BEST PART OF THE CONFERENCE: GETTING AWAY FROM WORK FOR A MINUTE. TALKING WITH OTHER DEVELOPERS TO SEE WE HAVE SIMILAR PROBLEMS. I LIKED GETTING SUGGESTIONS AND SOLUTIONS TO MY ISSUES.”

– Rodney Hickman, VSLive! San Diego 2022 Attendee
突围栏! Nashville offers three 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:
- ASP.NET Core App with EF Core
- The Human Side of Agile and DevOps
- Blazor

Attendee Requirements:
- These labs are presented on a Bring Your Own Laptop (BYOL) basis.

**HOL01**

**Hands-on Lab: Develop an ASP.NET Core App with EF Core in a Day**

**Intermediate**

**PHILIP JAPIKSE**

Monday, May 15, 9:00am - 6:00pm

Interested in ASP.NET Core and Entity Framework Core, but not sure where to start? Start here with an all-day Hands-on Lab where you will build a complete solution using the latest development technology from Microsoft. You will build a data access library using Entity Framework Core, complete with repos and migrations. Next, you will build an ASP.NET Core web application, leveraging all of the latest that ASP.NET Core has to offer, including Tag Helpers, View Components, Dependency Injection, and more!

You will learn:
- ASP.NET Core Web Applications (MVC)
- EF Core
- Build an application in a day!

Attendee Requirements:
- You must provide your own laptop computer (Windows or Mac) for this hands-on lab.
- All other laptop requirements will be provided to attendees 2 weeks prior to the conference.

**HOL02**

**Hands-On Lab: The Human Side of Agile and DevOps**

**Intermediate / Advanced**

**BENJAMIN DAY & ANGELA DUGAN**

Monday, May 15, 9:00am - 6:00pm

You have solid DevOps pipelines, the best of breed tooling, your processes are well documented and discoverable, and your team rooms are full of comfy chairs and the tastiest snacks! So why is it still so stinking difficult to meet your commitments and deliver high quality software? If it’s not a tooling problem it must be a people problem, and if it’s not a people problem it must be a system problem, right? It is easy to say that software delivery would be so easy... if it weren’t for all the humans. But why is that?

The technical stuff is easy by comparison. Humans need convincing and explanations and reasons for why they should embrace an Agile mindset, and follow DevOps leading practices, and work on this thing instead of that other more fun thing. If you’re in a leadership role, how can you tell if your teams are facing challenges, and what do you do about it? How do you know if your team members are productive? How can you prevent burnout, increase morale, and sustain a high performing team that crushes their commitments? What do we ALL need to know about being truly great team members, and why should we care?

In this workshop, Ben and Angela will connect the strategic, human-oriented reasoning to the tactical ‘nuts and bolts’ of a successful software organization. We’ll discuss process, metrics, communication, all of the typical Agile and DevOps concepts, and instead of focusing on any particular technology or framework, we’ll focus on how to help you and the humans around you to be happier, more effective, and truly productive.

You will learn:
- How to level up your communication and feedback to support continuous improvement, and minimize friction and conflict
- How to optimize delivery and maintain a healthy team morale by tracking the right metrics, not just the popular or common ones
- Understanding theories of complexity and constraints, and using that knowledge to manage and adapt to bottlenecks

Attendee Requirements:
- You must provide your own laptop computer (Windows or Mac) for this hands-on lab.
- All other laptop requirements will be provided to attendees 2 weeks prior to the conference.

**HOL03**

**Hands-On Lab: Build Your First Application with Blazor**

**Introductory to Intermediate**

**JEFFREY T. FRITZ**

Monday, May 15, 9:00am - 6:00pm

Tired of Angular, Vue, and React? Ready for the next generation of web user interface that runs everywhere and you can build with your favorite programming language? In this session, Jeff Fritz is going to introduce you to Blazor - the next generation UI framework from the .NET team. We’ll see how Blazor works with Web Assembly, webservers, and hybrid applications to deliver a great experience for your users. Blazor is the framework that allows you to build once and run it everywhere.

You will learn:
- How to level up your communication and feedback to support continuous improvement, and minimize friction and conflict
- How to optimize delivery and maintain a healthy team morale by tracking the right metrics, not just the popular or common ones
- Understanding theories of complexity and constraints, and using that knowledge to manage and adapt to bottlenecks

Attendee Requirements:
- You must provide your own laptop computer (Windows or Mac) for this hands-on lab.
- All other laptop requirements will be provided to attendees 2 weeks prior to the conference.

“I APPRECIATED HOW INFORMED THE SPEAKERS WERE. THEY COULD REALLY ANSWER A LOT OF QUESTIONS I HAD WITH CONFIDENCE. AND IF THEY COULDN’T, THEY RESEARCHED AND GOT BACK TO ME.”

– VSLive! Austin 2022 Attendee
FULL-DAY WORKSHOPS

Choose from a range of content and topics by expert presenters with Visual Studio Live! Nashville Post-Conference workshops.

Topics covered include:
- Azure Paas
- Microsoft Blazor
- SQL Server

Workshop: Ship Faster, More Securely with Azure Paas
Intermediate
BRIAN RANDELL & MICKEY GOUSSET
Friday, May 19, 8:00am - 5:00pm

In today's fast-paced business environment, organizations must deliver their applications quickly and securely. Azure Platform-as-a-Service (PaaS) provides a scalable, reliable, and cost-effective solution for developing and deploying web apps, web services, and databases. This workshop will demonstrate how you can leverage Azure PaaS to ship your applications faster and more securely.

In this workshop, you will learn how to build, deploy, and manage web apps, web services, and databases using Azure PaaS with Brian & Mickey. While examples will be presented using .NET 6 & 7 with SQL Server, the principles you'll learn will apply to any modern language and database supported by Azure. You will also learn how to ensure the security of your applications and monitor their performance using Azure PaaS. All of what you see will cover the single developer inner loop using Visual Studio 2022 while you'll see good DevOps practices with GitHub Enterprise Cloud and Azure DevOps Services for the outer team loop.

The workshop will consist of a mix of presentation slides and lots of demos. Brian & Mickey will be available to answer questions and provide guidance throughout the day. By the end of this workshop, you will have a solid understanding of how to use Azure PaaS to build, deploy, and manage web apps, web services, and databases. You will also have a good understanding of how to ensure the security and performance of your applications and how to use good DevOps practices to streamline your development and deployment processes.

You will learn:
- Attendees will learn how to create and deploy web apps, web services, and databases using Azure PaaS, which provides a scalable, reliable, and cost-effective solution for developing and deploying applications in the cloud
- Attendees will gain knowledge on how to implement security features such as authentication and authorization, as well as secure data in transit and at rest to ensure the security of their applications on Azure PaaS
- Attendees will also learn how to use good DevOps practices like continuous integration and deployment, automation testing and quality control to streamline development and deployment processes for their applications

Workshop: Microsoft Blazor Top to Bottom
Intermediate
JASON BOCK, ALLEN CONWAY & ROCKFORD LHOTKA
Friday, May 19, 8:00am - 5:00pm

Blazor (Browser + Razor) has redefined the current landscape for web developers, allowing C# and .NET back into the modern web development picture. Leveraging WebAssembly to allow running .NET code in the browser, we can use the same C# language on the client and the server to build our modern web applications. At the core of Blazor is the ability to compose our web application using reusable components just like the modern browser frameworks.

Join experts in Blazor, WebAssembly, and enterprise development as they discuss why and when to use Blazor. They will give you everything you need to know to build Blazor apps, use the Razor component model, data and event binding, styling the UI, and building maintainable code. You will learn about Blazor server, WebAssembly, and MAUI hybrid apps, and how to implement authentication and authorization. WebAssembly and Blazor are incredibly powerful technologies and may be the future of web development. Come to this workshop to form your own view on this exciting platform.

You will learn:
- The basics of Blazor app dev and Blazor features
- The various ways to host and run Blazor apps
- How to implement authentication and authorization

Workshop: Developer Dive into SQL Server 2022
Intermediate
LEONARD LOBEL
Friday, May 19, 8:00am - 5:00pm

This full-day workshop will get you up to speed on powerful new features in SQL Server 2022. Lenni will pull no punches as he rips through the most important SQL Server features for developers in this intensive demo-packed tour.

Next we'll explore security features, starting with ledger tables. New in SQL Server 2022, ledger utilizes blockchain technology that hashes every transaction, and guarantees tamper evidence in your database. Next, we'll examine dynamic data masking and row-level security. We'll then dig into Always Encrypted and demonstrate support for secure enclaves to enable rich querying over encrypted data. We'll wrap up with the latest PolyBase enhancements to query external data in Azure Blob Storage, Mongo DB, Oracle, and other remote data sources.

You’ll learn a ton of new SQL Server features in this information-packed day!

You will learn:
- How to boost developer productivity by running SQL Server inside Linux containers with Docker
- Intelligent Query Processing features, T-SQL enhancements, and modern development platform for machine learning with R and Python
- Discover the newest security features including ledger tables, Always Encrypted with secure enclaves, and the latest data virtualization capabilities with PolyBase
SESSION DESCRIPTIONS BY TRACK

DEVOPS AND BEYOND

DevOps has been called the “second decade of Agile”. We’ve learned much about what it means to be agile and to “do DevOps”, which is as much about culture and mindset as it is about tooling and code. As the world moves into a post-pandemic “new normal”, providing reliable remote access and automation that is secure, easy to access, and readily available is critical to modern teams being successful. Organizations that have thrived over the past few years both embraced and internalized leading DevOps practices and strategies, revolutionizing the way they deliver value to their customers with speed, without sacrificing quality.

As part of an organizational transformation, DevOps starts with a focus on people and better process and then, yes, great products are adopted to increase productivity and reduce friction. DevOps is all about the enablement and acceleration of continuous value delivery. After participating in sessions in this track, you’ll walk away confident in your knowledge about the why, what, and how of modern DevOps. Our DevOps experts will leverage their knowledge and experiences to expose you to the latest tools, strategies, and leading practices.

You’ll find coverage of:
• Hands-on Lab: GitHub Code to Cloud
• Essential DevOps
• Using Azure DevOps to Build and Release to Azure
• GitHub Actions Soup to Nuts
• Protecting yourself against supply chain attacks
• Unit testing and test-driven development (TDD)
• Achieving flow and scale in large organizations

T12
DevOps is Dead, Long Live DevOps!
Intermediate
BRIAN RANDELL
Tuesday, May 16, 1:30 – 2:45pm
You will learn:
• A deeper understanding of the history and evolution of the DevOps movement, from its origins as a set of best practices to its status as a cultural phenomenon
• The challenges facing DevOps in the modern software landscape, including the risk of becoming a buzzword and losing its original meaning, and the need to adapt to new technologies and practices
• Practical ways to apply DevOps principles to your own work, including how to foster a DevOps culture, how to implement automation and continuous delivery practices, and how to stay up-to-date with the latest DevOps trends and best practices

T15
GitHub Actions - Soup to Nuts
Intermediate / Advanced
MICKEY GOUSSET
Tuesday, May 16, 3:00 – 4:15pm
You will learn:
• What GitHub Actions is
• How to create custom actions and reusable workflows
• How to integrate GitHub Actions with other systems

W04
I Love YAML: Using Azure DevOps to Build and Release to Azure
Intermediate / Advanced
BENJAMIN DAY
Wednesday, May 17, 8:00 – 9:15am
You will learn:
• What is YAML and YAML-based pipelines? How is it the same/different from JSON-based pipelines?
• How do you handle multiple environments?
• How do you use approvals to control deployments to environments?

W18
GitHub Actions: Beyond CI/CD
Intermediate
ROB BOS
Wednesday, May 17, 2:30 – 3:45pm
You will learn:
• GitHub Actions can do more than CI/CD
• Real-life examples of automation

W22
Protect Yourself against Supply Chain Attacks
Intermediate / Advanced
ROB BOS
Wednesday, May 17, 4:00 – 5:15pm
You will learn:
• Why do we need to protect ourselves?
• What things do we need to think about?
• A framework to guide you through improving your security stance

TH05
Protect your Code with GitHub Security Features
Intermediate / Advanced
ROB BOS
Thursday, May 18, 9:30 – 10:45am
You will learn:
• Commit signing
• Dependabot
• Secret scanning
• Code scanning using CodeQL
SESSION DESCRIPTIONS BY TRACK (continued)

TH13
Too Late for TDD? Start Test Eventually Development Now
Introductory / Intermediate
JIM WOOLEY
Thursday, May 18, 1:15 – 2:30pm
You will learn:
• The differences between unit testing, integration testing, and functional testing and when to use each
• How to start adding testing strategies against existing code bases
• Discover how and when to modify your code to make it more testable including refactoring to support injection and mocking

TH17
Flow, the Universe and Everything
Introductory
CLINT EDMONSON
Thursday, May 18, 2:45 – 4:00pm
You will learn:
• Understand the importance of flow in development
• See examples of flow across industries and disciplines
• Apply lessons and takeaways to daily development practices

T11
WebAssembly in the Cloud
Intermediate
JON FLANDERS
Tuesday, May 16, 1:30 – 2:45pm
You will learn:
• Understand how WebAssembly can be used outside of the browser

T14
Use OpenAPI to Document and Generate Your Services and Clients
Introductory
JON FLANDERS
Tuesday, May 16, 3:00 – 4:15pm
You will learn:
• The basics of how OpenAPI works
• Understand the power of OpenAPI code generation
• Be able to integrate OpenAPI and code generation into your own development pipeline

W13
Fast Focus: What Manifests are These?
Introductory
MIKE BENKOVICH
Wednesday, May 17, 2:00 – 2:20pm
You will learn:
• What is a manifest and
• How do you work with them
• What tools are available to make working with Kubernetes manifests easier?

W17
From Core to Containers to Orchestration - Modernizing my Compute
Intermediate
MIKE BENKOVICH
Wednesday, May 17, 2:30 – 3:45pm
You will learn:
• What’s compelling about the new .NET framework
• How containerization works
• When and why to go to orchestration

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.

This track includes coverage of the following:
• Workshop: Ship Faster, More Securely with Azure PaaS
• WebAssembly in the Cloud
• Use OpenAPI to document and generate your services and clients
• Introduction to Actor-based Development with Project Orleans
• Fast Focus: What Manifests are These?
• From Core to Containers to Orchestration - Modernizing my Compute
• An Infrastructure as Code Bake-off, comparing ARM, Terraform and Bicep

“THE INSTRUCTORS WERE ALL AWESOME! REALLY ENJOY LISTEN TO THEM SPEAK ON TOPICS THEY ARE PASSIONATE ABOUT.”
– Jose Medina,
VSLive! Microsoft HQ
2022 Attendee
**AI, DATA, AND MACHINE LEARNING**

Data has once again become one of the hottest topics in our industry and ecosystem. SQL Server 2022 became generally available in November, Azure SQL Database, including Managed Instance, continually improves, Cosmos DB continues to gain momentum; data warehouse and data lake skills grow ever more important, working with AI responsibly is super-relevant, and Entity Framework remains front-and-center in the modern .NET world. There’s no room for anyone to be complacent when it comes to data, and we’re here to keep you up to date.

This track includes coverage of the following:
- Azure Data Lakes and Delta Lakes
- Designing Azure Modern Data Warehouse Solutions
- Power BI and Azure Databricks SQL
- Fast Focus: Power BI Metrics: Managing KPIs and Scorecards for Yourself and Your Team
- Building Event-Driven Microservices with the Azure Cosmos DB Change Feed

**SESSION DESCRIPTIONS BY TRACK (continued)**

**W21**

An Infrastructure as Code Bake-off, Comparing ARM, Terraform, and Bicep

*Intermediate*

MIKE BENKOVICH

Wednesday, May 17, 4:00 – 5:15pm

You will learn:
- What is Bicep and how is it related to ARM
- How does Terraform work and compare to ARM and Bicep
- What other tools are out there and how do they compare

**T03**

Azure Data Lakes and Delta Lakes

*Introductory / Intermediate*

KEN MUSE

Tuesday, May 16, 8:00 – 9:15am

You will learn:
- A basic understanding of data lakes and how NoSQL data is organized
- Data organization and partitioning with the Zone and Medallion patterns
- What is a Delta Lake, and when and why to utilize that technology

**T07**

Designing Azure Modern Data Warehouse Solutions

*Introductory / Intermediate*

KEN MUSE

Tuesday, May 16, 9:30 – 10:45am

You will learn:
- Define and understand how to implement the MDW architecture pattern
- How to determine appropriate Azure SQL and NoSQL solutions for a workload
- Understand how to ingest and report against high volume data

**W10**

Fast Focus: Power BI Metrics: Managing KPIs and Scorecards for Yourself and Your Team

*Introductory / Intermediate*

ANDREW BRUST

Wednesday, May 17, 1:30 – 1:50pm

You will learn:
- What KPIs and OKRs are, and when they’re useful
- The basics of Power BI scorecarding and different types of scorecards
- How to build and deploy Power BI scorecards, and analyze their output

**TH03**

Responsible AI

*Intermediate*

VERONIKA KOLESNIKOVA

Thursday, May 18, 8:00 – 9:15am

You will learn:
- The responsible AI principles
- Understand the tools for applying those principles to ML solutions
- Best practices for applying the principles

**TH06**

Building Event-Driven Microservices with the Azure Cosmos DB Change Feed

*Advanced*

LEONARD LOBEL

Thursday, May 18, 9:30 – 10:45am

You will learn:
- About the change feed in Azure Cosmos DB
- Explore event-driven microservices enabled by leveraging the change feed
- Watch live demos using the Change Feed Processor library with Azure Functions
SESSION DESCRIPTIONS BY TRACK (continued)

TH10
What’s New for Developers in SQL Server 2022
Intermediate
LEONARD LOBEL
Thursday, May 18, 11:00am – 12:15pm
You will learn:
• How to secure your data using ledger tables
• How to apply granular permissions to dynamic data masking
• How to leverage new T-SQL enhancements

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 for rich multi-platform apps to the latest for Windows developers and even bots for good measure.

This track includes coverage of the following:
• Making Design Pay
• Deep Dive: MAUI .NET
• Busy Developer’s Guide to Flutter
• Using Blazor in MAUI
• ML.NET in Maui
• Practical Internet of Things for the Microsoft Developer
• Create Intelligent Bots with the Power Platform, Azure, and Cognitive Services

TH14
Getting Your Story Straight with Data Visualizations
Introductory
STACIA VARGA
Thursday, May 18, 1:15 – 2:30pm
You will learn:
• How telling a story is different from creating a report
• Explore the vocabulary and grammar of data visualization
• Evaluate the goal of your data story and choose appropriate visualizations

TH18
Making the Leap from Reporting to Data Analysis
Introductory / Intermediate
STACIA VARGA
Thursday, May 18, 2:45 – 4:00pm
You will learn:
• Review the basic process of data analysis
• How to reveal and explore relationships in your data
• How to apply simple statistics to your data for deeper insights

T04
Making Design Pay
Introductory / Intermediate
BILLY HOLLIS
Tuesday, May 16, 8:00 – 9:15am
You will learn:
• To estimate Return on Investment for UX design
• Find ways to discuss doing better design with managers above you
• See how to prioritize design in development projects

T10
Deep Dive with MAUI
Intermediate
SAM BASU
Tuesday, May 16, 1:30 – 4:15pm
Let’s look under the surface of the future with .NET MAUI. Architectural changes make things more consistent in .NET MAUI – app bootstrapping, resource sharing, dependency injection, support for multiple design patterns & catering to mobile/desktop platforms.

W02
Bringing the Web to Native Applications with Blazor Hybrid
Introductory to Intermediate
JEFFREY T. FRITZ
Wednesday, May 17, 8:00 - 9:15am
In this session, .NET Program Manager Jeff Fritz will show you how to take your web development skills and deploy them natively on your favorite devices without rewriting your application.

W06
Busy Developer’s Guide to Flutter
Intermediate
TED NEWARD
Wednesday, May 17, 9:30 – 10:45am
You will learn:
• The basics of Dart and Flutter
• Different approaches to coding
• Take away a different way of thinking about building mobile apps

W12
Fast Focus: Using Blazor in MAUI
Introductory
ROCKFORD LHOTKA
Wednesday, May 17, 2:00 – 2:20pm
You will learn:
• How to create a MAUI Blazor project
• How Blazor operates within MAUI
• How Blazor can leverage MAUI to access native capabilities

TH08
Is there ML.NET in MAUI?
Introductory / Intermediate
VERONIKA KOLESNIKOVA
Thursday, May 18, 11:00am – 12:15pm
You will learn:
• Understand the basics of ML.NET
• Practical knowledge about Xamarin to MAUI migration
• Practical knowledge about adding ML.NET to a MAUI application

TH12
Practical Internet of Things for the Microsoft Developer
Introductory / Intermediate
ERIC D. BOYD
Thursday, May 18, 1:15 – 2:30pm
You will learn:
• Overview of Internet of Things
• Getting started with Azure IoT services
• How to prototype IoT devices and sensors

TH16
Create Intelligent Bots with the Power Platform, Azure, and Cognitive Services
Introductory / Intermediate
ERIC D. BOYD
Thursday, May 18, 2:45 – 4:00pm
You will learn:
• Overview of conversational bots
• Getting started building conversational bots with Azure and PVA
• How to design great conversational experiences

TECHNICAL EXCELLENCE AND LEADERSHIP SKILLS
Highly motivated people who feel connected, who feel valued, and who get to work on challenging problems love what they do, feel more energized and fulfilled by their work, and deliver exceptional solutions and products. Who doesn’t want that for themselves, for their teammates, or for the people who work for them? Modern software companies that experience the greatest successes invest in their people’s leadership skills starting with apprentices, expanding into all roles within software teams, up through directors, all the way to their C-suite. Strong, effective leaders cultivate cultures where respect, mentorship, and support are central to how the company operates regardless of their official title or respective place within the organization.

Whether you’re a leader by title or by necessity, or an individual contributor with leadership in your future, the skills and practices shared in this track will enable you to be an effective, respected, and inspiring leader. You will learn how to have more productive and positive interactions with stakeholders, other team members, direct reports, even your own manager. Whether you’re an experienced leader or an aspiring one, we have something for you in the Technical Excellence and Leadership Skills track.

Topics in this track include:
• How to troubleshoot and save a failing project
• User Experience Research and Design
• Improving Agility through close collaboration with clients
• Innovative problem solving
• Laws, Patterns, and Idioms of Object-Oriented programming
• Data driven decision making
• Facing uncomfortable truths of software development
• Choosing metrics with your team to foster experimentation and growth
• Workshop: The Human Side of Agile and DevOps

W14
Fast Focus: WTF UX - UX Research and Design AMA
Intermediate
DEBBIE LEVITT
Wednesday, May 17, 2:00 – 2:20pm
You will learn:
• Working smarter and better with UX.
• UX... WTF?
• Anything you want to ask!

W16
Improving Agility by Using Customers’ Definitions of “Quality” and “Done”
Intermediate
DEBBIE LEVITT
Wednesday, May 17, 2:30 – 3:45pm
You will learn:
• Put the “evidence-based” in evidence-based decision making
• Working with UX Researchers and Designers in an Agile environment
• Improving customer outcomes
**SESSION DESCRIPTIONS BY TRACK (continued)**

**W20**

*How to Fix a Failing Project*

Intermediate / Advanced

**BENJAMIN DAY**

Wednesday, May 17, 4:00 – 5:15pm

You will learn:
- How unclear priorities and too much Work in Progress (WIP) can get in your way
- How to use simple metrics to measure what’s going on: Flow Metrics, Cycle Time, and Lead Time
- Communication techniques for working with grumpy stakeholders and bosses

**TH04**

*How to Increase Innovative Problem Solving in Teams*

Introductory

**AMBER VANDERBURG**

Thursday, May 18, 8:00 – 9:15am

You will learn:
- How to identify the purpose of their problem solving to be more effective in their innovation
- Tools such as TRIZ to encourage more creativity
- How to collaborate with others to create innovative solutions

**TH07**

*Advanced OOP - Laws, Patterns & Idioms*

Intermediate

**CLINT EDMONSON**

Thursday, May 18, 9:30 – 10:45am

You will learn:
- Understand advanced OOP patterns
- See examples of these patterns in practice
- Learn how and when to use them in your own development

**TH11**

*Data Driven Decision Making*

Introductory

**AMBER VANDERBURG**

Thursday, May 18, 11:00am – 12:15pm

You will learn:
- How to better collect and organize data points
- How to accurately interpret data points
- How to communicate data clearly

**TH15**

*Getting Started with Design Thinking: A Guide for Developers and Managers*

Introductory

**BILLY HOLLIS**

Thursday, May 18, 1:15 – 2:30pm

In this session, we’ll cover the various levels of design effort. Attendees will get tips on applying design thinking to their own projects, from basic do’s and don’ts all the way through facilitating organization-spanning innovation.

**TH19**

*Measuring Up! How to Choose Agile Metrics Your Team Won’t Hate*

Introductory / Intermediate

**ANGELA DUGAN**

Thursday, May 18, 2:45 – 4:00pm

You will learn:
- Why it is so difficult to identify meaningful metrics in the software world
- The importance of developing a healthy “metrics mindset”
- The best types of quality-focused team metrics to focus on in an agile organization

**T02**

*Useful New-ish Features in .NET/C#*

Introductory / Intermediate

**DEBORAH KURATA**

Tuesday, May 16, 8:00 – 9:15am

You will learn:
- About some of the new-ish features in C#`
- About some of the new-ish features in .NET
- How to leverage these features in your current projects

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**THE CORE OF .NET**

The heart of the Microsoft development experience has been the .NET Framework. But it’s changed a lot in the era of .NET Core. And now we have a single, unified version, .NET 6. You need to understand these major changes in the platform, not to mention the cool features being added to C#.

These are the foundation-level topics you need to know for success in the Microsoft development world.

Topics in this track include:
- Useful New-ish features in .NET/C#
- Be more productive with .NET using GitHub Copilot and GitHub Codespaces
- Busy Developer’s Guide to Auth-n-Auth
- Fast Focus: Getting .NET Interactive Notebooks
- What’s New in .NET 7 APIs
- Entity Framework performance monitoring and tuning
- Building cloud-ready applications in .NET
- Dependencies Demystified
SESSION DESCRIPTIONS BY TRACK (continued)

**T06**
Be More Productive with .NET Using GitHub Copilot and GitHub Codespaces
*Introductory / Intermediate*
BRIAN RANDELL
Tuesday, May 16, 9:30 – 10:45am
You will learn:
- The basics of GitHub Copilot and how it can be used to improve productivity
- How to set up and use Codespaces for cloud-hosted development in .NET, and how it integrates with GitHub for collaboration with other developers
- Discover practical tips and best practices for using Copilot and Codespaces effectively in real-world scenarios

**W03**
Busy Developer’s Guide to Auth-n-Auth
*Intermediate*
TED NEWARD
Wednesday, May 17, 8:00 – 9:15am
You will learn:
- Demystify some security terminology and concepts
- How and when each principle applies
- Build a strong mental model of how/when/why to secure logins

**W08**
Dependencies Demystified
*Intermediate*
JASON BOCK
Wednesday, May 17, 9:30 – 10:45am
You will learn:
- Gain insight into what dependencies are
- See how containers simplify and empower your applications
- How to use containers effectively in modern .NET applications

**W11**
Fast Focus: Getting .NET Interactive Notebooks
*Introductory*
JASON BOCK
Wednesday, May 17, 1:30 – 1:50pm
You will learn:
- See what .NET Interactive Notebooks are
- Understand how .NET works in notebooks
- Gain insight into .NET integration in Jupyter

**W19**
What’s New in .NET 7 APIs
*Intermediate*
JASON BOCK
Wednesday, May 17, 4:00 – 5:15pm
You will learn:
- See what functionality .NET provides
- Understand new features in the latest version of .NET
- Gain insight in staying on top of new runtime versions

**TH09**
Entity Framework Performance Monitoring and Tuning
*Intermediate*
JIM WOOLEY
Thursday, May 18, 11:00am – 12:15pm
You will learn:
- Discover typical performance issues based on real-life examples and how to fix them
- Discover how to profile your database interactions through Entity Framework
- How different versions of EF generate different queries and how you need to modify your data access strategy as a result

**TH02**
Building Cloud-Ready Applications in .NET
*Intermediate*
LAYLA PORTER
Thursday, May 18, 8:00 – 9:15am
You will learn:
- What it means to be cloud ready
- Architecting systems
- Libraries supporting cloud-readiness
# FULL STACK WEB DEVELOPMENT

Web development has become the dominant approach for building enterprise software. To provide your best on every project, you need to understand the server and browser client worlds. On the server, there’s ASP.NET using .NET 6 with MVC, Razor Pages, and support for building services. The browser client is evolving rapidly, with constant changes and updates to JavaScript, TypeScript, Angular, and other related frameworks. But more than this, there’s now Blazor Server and Blazor Client (aka WebAssembly) and the ability to run other languages natively in the browser. 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:**

- Getting Up and Running with Modern Angular
- Introduction to Blazor
- RxJS in Angular: Working with Data
- ASP.NET Basics for Experts
- Building Enterprise Blazor Apps Using CSLA .NET
- Workshop: Microsoft Blazor Top to Bottom

## T01

**Getting Up and Running with Modern Angular**  
*Introductory*

**ALLEN CONWAY**  
Tuesday, May 16, 8:00 – 9:15am

**You will learn:**
- The fundamentals of the Angular framework and why you would use it for modern web development, as well as how it fits in front of your existing back-end implementation
- How to create and run an Angular application using the CLI (Command Line Interface)
- The fundamentals of Angular applications by building components, views, and services

## T05

**RxJS in Angular: Working with Data**  
*Introductory / Intermediate*

**DEBORAH KURATA**  
Tuesday, May 16, 9:30 – 10:45am

**You will learn:**
- Understand what reactive programming means
- Tips and techniques for implementing reactive programming in Angular
- Leverage reactive programming for working with data

## T09

**Introduction to Blazor**  
*Introductory / Intermediate*

**ROCKFORD LHOTKA**  
Tuesday, May 16, 1:30 – 2:45pm

**You will learn:**
- How Blazor, WebAssembly, and .NET combine to enable this app platform
- How to build server-side Blazor and Blazor WebAssembly apps
- How to use Blazor UI framework features such as UI components, data binding, routing, and authorization
W09
Fast Focus: JavaScript Framework/Library Showdown
Introductory
ALLEN CONWAY
Wednesday, May 17, 1:30 – 1:50pm
You will learn:
• About the main frameworks and libraries for modern web client development
• About the main differences between Angular, React, and Vue
• About what backing factors will help guide the way to making a good decision about the framework and library chosen

W15
TypeScript: Moving Beyond the Basics
Intermediate / Advanced
ALLEN CONWAY
Wednesday, May 17, 2:30 – 3:45pm
You will learn:
• About advanced TypeScript language features available beyond the basics
• How to leverage the building blocks of TypeScript and build upon them with advanced features to make web client development more powerful
• About additional TypeScript language features like advanced types, decorators, mixins, symbols, generics, iterators, and declaration merging

TH01
Deep Dive: Web Services with ASP.NET Core Deep Dive
Intermediate
PHILIP JAPIKSE
Thursday, May 18, 8:00 – 10:45am
You will learn:
• Foundations of ASP.NET Core
• Building RESTful services with ASP.NET Core
• Documenting services with swagger
CONFERENCE CHAIRS & SPEAKERS

CONFERENCE CHAIRS

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

Angela Dugan  
Solutions Director, 3Cloud Solutions  
Visual Studio Live! Conference Co-Chair

Rockford Lhotka  
VP of Strategy, Xpirit  
Visual Studio Live! Conference Co-Chair

Brian Randell  
Product Marketing Director, GitHub  
Visual Studio Live! Conference Co-Chair

SPEAKERS

Sam Basu  
Developer Advocate, Progress Software

Mike Benkovich  
Developer, Business Owner, Consultant, Cloud Architect, Instructor

Jason Bock  
Developer Advocate, Rocket Mortgage

Rob Bos  
DevOps Consultant, Xpirit

Eric D. Boyd  
Founder and CEO, responsiveX

Andrew Brust  
CEO and Founder, Blue Badge Insights

Allen Conway  
Web Client Practice Lead, Cognizant Softvision

Benjamin Day  
Author, Trainer, Developer

Angela Dugan  
Solutions Director, 3Cloud Solutions

Clint Edmonson  
Director of Software Engineering, Ascendle

Jon Flanders  
Software Engineer, Disney

Jeffrey T. Fritz  
Senior Program Manager, Microsoft

Mickey Gousset  
DevOps Architect, GitHub

Billy Hollis  
Developer, Designer, Speaker, Author

Philip Japikse  
Developer, Coach, Author, Teacher

Veronika Kolesnikova  
Sr. Software Engineer, Liberty Mutual

Deborah Kurata  
Consultant, Speaker, Author

Debbie Levitt  
CXO, Delta CX

Marty Davis  
Developer Advocate, VMWare

Dan Neely  
Solution Architect, Slalom Consulting

Ken Muse  
Senior DevOps Architect, GitHub

Ted Neward  
Principal, Neward & Associates

Layla Porter  
Developer Advocate, VMWare

Brian Randell  
Product Marketing Director, GitHub

Amber Vanderburg  
Founder, Pathwayz Group

Stacia Varga  
Consultant, Educator, and Author

Jim Wooley  
Solution Architect, Slalom Consulting

Paul Yuknewicz  
Head of Product, Azure Serverless, Microsoft
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“IT LOVED THE NUGGETS OF INFORMATION THAT I CAN DIRECTLY APPLY TO MY WORK STARTING MONDAY.”

– VSLive! Microsoft HQ 2022 Attendee
VENUE & TRAVEL

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Special attendee rate: $255.00*
Book by: April 14, 2023

Book your room online for the Visual Studio Live! Room Block. The offer is subject to room availability, so make sure to book early.

Renaissance Nashville Hotel rooms booked within the Visual Studio Live! room block include:
• Unlimited local phone calls
• Complimentary access to the Fitness Center
• In-room wireless internet access

*The special attendee room rate is based on single or double occupancy. The room rate does not include applicable state, local, and occupancy taxes. Rooms are subject to availability.

VISITING NASHVILLE
Take advantage of all the city of Nashville has to offer. Explore and find your Nashville inspiration to start planning your trip today!
# CONFERENCE AND HOTEL PRICING PACKAGES

Visual Studio Live! offers several conference and hotel packages to best suit your needs and budget. Register now to save your seat and remember to book your hotel early too before it sells out!

## CONFERENCE PACKAGES

<table>
<thead>
<tr>
<th>Package</th>
<th>SUPER EARLY BIRD UNTIL MARCH 10</th>
<th>EARLY BIRD UNTIL APRIL 14</th>
<th>STANDARD UNTIL MAY 15</th>
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</thead>
<tbody>
<tr>
<td><strong>5-DAY CONFERENCE PACKAGE</strong> + Monday HOL + Friday Workshop (Monday - Friday)</td>
<td>$2,700</td>
<td>$2,800</td>
<td>$3,100</td>
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<td><strong>4-DAY CONFERENCE PACKAGE</strong> + Friday Workshop (Tuesday - Friday)</td>
<td>$2,200</td>
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<td><strong>3 DAY CONFERENCE PACKAGE</strong> (Tuesday-Thursday)</td>
<td>$1,700</td>
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<td><strong>FULL DAY HANDS-ON LAB</strong> (Monday Only)</td>
<td>$650</td>
<td>$700</td>
<td>$750</td>
</tr>
<tr>
<td><strong>FULL DAY WORKSHOP PASS</strong> (Friday Only)</td>
<td>$650</td>
<td>$650</td>
<td>$650</td>
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## ADD THE HOTEL PACKAGE

At the Renaissance Nashville Hotel

<table>
<thead>
<tr>
<th>Package</th>
<th>Price</th>
<th>Check In/Check Out</th>
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<tbody>
<tr>
<td><strong>5 DAY HOTEL PACKAGE</strong></td>
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<td>Sun, May 14/Fri, May 19</td>
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<tr>
<td><strong>4 DAY HOTEL PACKAGE</strong></td>
<td>$1,200</td>
<td>Mon, May 15/Fri, May 19</td>
</tr>
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<td><strong>3 DAY HOTEL PACKAGE</strong></td>
<td>$900</td>
<td>Mon, May 15/Thur, May 18</td>
</tr>
</tbody>
</table>

*The Hotel Package includes applicable state, local and occupancy taxes.
DISCOUNTS & SPECIAL SAVINGS

TEAM DISCOUNTS: BRING THE TEAM AND SAVE BIG!
Visual Studio Live! Nashville offers savings to teams of 3 or more from the same company and registering for the same package. Looking to bring 10 or more? Contact our Conference Registrar at sross@converge360.com or at 949.296.9840.

**TEAM PACKAGES** * Team Prices quoted are “per-person”

<table>
<thead>
<tr>
<th>Package Description</th>
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<th>STANDARD UNTIL MAY 15</th>
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</thead>
<tbody>
<tr>
<td>5-DAY CONFERENCE PACKAGE + Monday HOL + Friday Workshop (Monday - Friday)</td>
<td>$2,400</td>
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<tr>
<td>4-DAY CONFERENCE PACKAGE + Friday Workshop (Tuesday - Friday)</td>
<td>$1,900</td>
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<tr>
<td>3 DAY CONFERENCE PACKAGE (Tuesday-Thursday)</td>
<td>$1,600</td>
<td>$1,600</td>
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</table>

MORE DISCOUNTS

ALUMNI
Welcome back! If you have attended any Visual Studio Live!, TechMentor or Live! 360 event, you qualify for our special alumni discount. You should receive alumni special promotions, but if not, please contact our Conference Registrar at sross@converge360.com or 949.296.9840.

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— VSLive! San Diego 2022 Attendee
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Visual Studio Live! Microsoft HQ
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vslive.com/microsofthq

TechMentor Microsoft HQ
July 17-21, 2023
Microsoft Conference Center, Redmond, WA / Hyatt Regency Bellevue
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August 7-11, 2023
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vslive.com/sandiego

Visual Studio Live! / Live! 360 Orlando
November 12-17, 2023
Loews Royal Pacific Resort at Universal Orlando, Orlando, FL
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