

Bio

Don't talk to him about distributed databases, bad password policies, bad UX, bad frameworks, or the TV show "The Expanse," one co-worker once said of Michael. "If you get him going, he'll go on for an hour." In retrospect, speaking at conferences seems like a perfect outlet for his passion. Everyone he works with has already heard all of his rants; in a way, they've been his test subjects. Now that he has mastered these rants, it's your turn. When he's not practicing his rants, Michael helps clients get the most out of their cloud adoption, specializing in multi-cloud application architectures.

Once upon a time, a developer was born. The eugenics computer named him Michael N. Meadows, because it thought having the initials MNM would build character. While the content of his character is debatable, the contents of his conference sessions is legendary. When he's not exploding peoples' brains at conferences, Michael is shedding "first blood" on the bleeding edge of cloud technologies.

Michael has been a professional programmer and architect for seventeen years, and a hacker for much longer. He has served as architect on multiple large-scale, cloud-based application and infrastructure projects. Additionally, Michael has extensive experience building high volume, resource intensive business logic applications using distributed architectures. When he's not building high-performing teams and applications, he likes to build racing quadcopters.

Abstract 1:

Everything You Always Wanted to Know About Distributed Application Architectures * But Were Afraid to Ask

Distributed application architectures are complex. To a large extent, the past forty years of computer science has been dedicated to avoiding the problem, rather than addressing it head-on. The age of "internet of things" and "microservices", however, has forced us into a world where we must not only acknowledge distributed architectures, but must embrace them. While the theory underpinning modern distributed systems can be dry and boring, this talk uses metaphors to get the point across. Attendees will leave equipped with the knowledge necessary to understand and thrive in a truly distributed architecture, and hopefully a few laughs too.

Abstract 2:

Understanding the Lifecycle of Data in Modern Cloud Applications

The one thing that top-tier cloud providers have in common is their focus on giving organizations many ways to create and consume data. Whether through hosted data platforms, database as a service (DBaaS), or Data as a service, getting the most out of your cloud provider's data offerings can seem daunting. The good news is that it's not as hopeless as it may seem at first. In this talk, attendees will learn several approaches to managing data in the cloud. Practical examples will be given using Amazon Web Services, Microsoft Azure, and Google Cloud.

Abstract 3:

The Future of Mobile Engagement... No UI: Designing Successful User Experiences with Microsoft Bot Framework

Getting users to install a mobile app is hard enough. Getting them to engage consistently over time is nearly impossible. Users already suffering from app overload are reluctant to add another app to their daily routine. They want to engage with businesses at their pace, on their platform of choice. They want to transition from automated to human workflows and back seamlessly. Bots provide all this and more. So why not meet them where they're at?

This session focuses on how to use the Microsoft Bot Framework to deliver user experiences that transcend an app or website. While not a technical talk (I won't be showing code), we'll dive deep into the technical capabilities and how they drive the solution. Developers, analysts, and product owners will benefit through understanding the fundamental concepts that influence the design of a good bot. Attendees will leave prepared to design great user experiences using the Bot Framework's out-of-the-box features and Microsoft's tightly integrated Cognitive Services.

Abstract 4:

The Ugly Side of Serverless Apps (and How to Succeed Anyway)

AWS has Lambda, GCP has Cloud Functions, and Azure has Functions. Although they differ in implementation, they all share a basic philosophy: only pay for what you use. With this benefit, however, comes some downsides. This talk explores both the shared and platform specific considerations that developers need to account for when building serverless apps. After attending, audience members will be able to optimize their serverless adoption in the cloud.

platform of their choice. This is not a session about why you shouldn't use cloud-based serverless platforms, but a good hard look at what you should know if you decide to do it.

Abstract 5:

Layered Security Using Policy-Based Access Control in ASP.Net Core

Let's set something straight. This is not your father's ASP.Net. The ASP.Net Core framework is a modern extensible development stack that is focused providing conventions without being too opinionated. One example of this is in its implementation of policy based access control (PBAC). This talk covers the technical foundation of PBAC, and some "best practices" that can allow developers and BAs to create security that is both stronger and less intrusive. This includes using user claims, system data, and environmental factors. Real-world examples will be provided. Bonus: An example using machine learning to evaluate risk in real-time for authorization.

Seminar 1

Session 1: Build Better Bots Part 1: Getting Started with Microsoft Bot Framework v4

This is the first half of an all-day precompiler focused on preparing experienced C# programmers to build enterprise-class bots using the Microsoft Bot Framework v4. While the second half covers advanced tooling and AI, this half covers the foundational concepts that take developers from the basics through intermediate scenarios.

Attendees will learn how to create a bot from scratch and manage its configuration. They will also learn to enhance the bot by integrating with data sources to create a FAQ, using Language Understanding to determine intent, building interactive cards to enhance the user's experience, and managing the state of a chat over time.

Session 2: Build Better Bots Part 2: The Microsoft Virtual Assistant Template

This is the second half of an all-day precompiler focused on preparing experienced C# programmers to build enterprise-class bots using the Microsoft Bot Framework v4. While the first half covers the basics of creating and enhancing a chat bot, this half covers advanced

scenarios using the Microsoft Virtual Assistant template. Although attending the first half is not required to follow along with this session, doing so will enhance your experience.

This precompiler session will start with reviewing the architecture and extensibility points of the Microsoft Virtual Assistant template. Using the Virtual Assistant template, attendees will create advanced UX with adaptive cards, and extend bot functionality by having the Virtual Assistant integrate with other bots (skills). Attendees will then learn how to distribute their bots through multiple channels (e.g. Slack, teams, SMS) using the Azure Bot service, and to monitor the bots in Azure using PowerBI and Application Insights.