

# Salt Lake Software Symposium

Radisson Salt Lake City Hotel

May 3 - 4, 2019

Fri, May. 03, 2019					
	WASATCH 2	WASATCH 1	PARLEYS	MILLCREEK	RED BUTTE
7:30 - 8:30 AM	REGISTRATION/BREAKFAST				
8:30 - 8:45 AM	WELCOME				
8:45 - 10:15 AM	The Evolution of Java: 9, 10, 11, and 12 Venkat Subramaniam	Architecture: The Hard Parts Neal Ford	Critical Questions You Should Be Asking Matt Stine	Essential Spring Boot Craig Walls	Understanding Kubernetes: Fundamentals Jonathan Johnson
10:15 - 10:45 AM	BREAK				
10:45 - 12:15 PM	Continuations and Fibers: The New Frontier for Java Venkat Subramaniam	Restructuring & Migrating Architectures Neal Ford	Metaphysics of Software Design Matt Stine	Extreme Spring Boot Craig Walls	Understanding Kubernetes: Container Patterns Jonathan Johnson
12:15 - 1:15 PM	LUNCH				
1:15 - 2:45 PM	Migrating to Java Modules: Why and How Venkat Subramaniam	Architecture Foundations: Styles & Patterns Neal Ford	DDD and Microservices: Like Peanut Butter and Jelly Matt Stine	Spring Boot: Application management with Actuator Craig Walls	Understanding Kubernetes: Testing Patterns Jonathan Johnson
2:45 - 3:00 PM	BREAK				
3:00 - 4:30 PM	Rediscovering JavaScript Venkat Subramaniam	Architecture Foundations: Characteristics & Tradeoffs Neal Ford	Domain-Driven Serverless Design Matt Stine	Securing Spring: REST and OAuth2 Craig Walls	Code Analysis and Team Culture Jonathan Johnson
4:30 - 4:45 PM	BREAK				
4:45 - 6:15 PM	Mastering JavaScript Modules Venkat Subramaniam	Making Sense of Architectural Coupling with Connascence Matt Stine	VDD: Value Driven Development - 10 Golden Rules for incremental Greatness Michael Carducci	The talking app: Voice-enabling Spring Applications Craig Walls	Understanding Kubernetes: Serverless Jonathan Johnson
6:15 - 7:00 PM	DINNER				
7:00 - 8:00 PM	Keynote: by Neal Ford				

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Sat, May. 04, 2019					
	WASATCH 2	WASATCH 1	PARLEYS	MILLCREEK	RED BUTTE
7:30 - 8:15 AM	BREAKFAST				
8:15 - 9:45 AM	Type Inference in Java: Dos and Don'ts Venkat Subramaniam	A Vue perspective - Web Apps with Vue.js &#8212;&#160;Part I Raju Gandhi	Architectures That Bend But Don't Break Matt Stine	Machine Learning: Overview Brian Sletten	Understanding Kubernetes: Meshing Around with Istio Jonathan Johnson
9:45 - 10:00 AM	BREAK				
10:00 - 11:30 AM	Core Software Design Principles Venkat Subramaniam	A Vue perspective - Web Apps with Vue.js &#8212;&#160;Part II Raju Gandhi	Art of Streaming Daniel Hinojosa	Machine Learning: Natural Language Processing Brian Sletten	Team Culture: Katacoda, a Learning Medium Jonathan Johnson
11:30 - 12:15 PM	EXPERT PANEL DISCUSSION				
12:15 - 1:00 PM	LUNCH				
1:00 - 2:30 PM	In Depth Kafka Streams and KSQL Daniel Hinojosa	The Influential Engineer - Overcoming resistance to change Michael Carducci	Micro Frontends FTW Lyndsey Padget	Machine Learning: Deep Learning Brian Sletten	Get Go-ing Raju Gandhi
2:30 - 2:45 PM	BREAK				
2:45 - 4:15 PM	GRAAL The Magnificent! Daniel Hinojosa	Influential Engineer Part 2 - Persuasion Patterns Michael Carducci	Git: Concepts & Strategies Lyndsey Padget	The Decentralized Web Brian Sletten	Infrastructure-As-A-Code with Ansible Raju Gandhi
4:15 - 4:30 PM	BREAK				
4:30 - 6:00 PM	Grokking Generics Daniel Hinojosa	An Introduction to Micronaut Michael Carducci	Badass 101 Lyndsey Padget	WebAssembly Brian Sletten	Ansible (best) practices Raju Gandhi

# Salt Lake Software Symposium

## -Session Schedule-

(event schedule as of May 3, 2019)

### Friday, May. 3

7:30 - 8:30 AM : REGISTRATION/BREAKFAST

8:30 - 8:45 AM : WELCOME

8:45 - 10:15 AM - Sessions

#### **Session #1 @ WASATCH 2 : The Evolution of Java: 9, 10, 11, and 12 by Venkat Subramaniam**

Java is a language in evolution. There are a handful of language changes in Java 9 and 10 plus several JDK changes in 9, 10, 11, and 12. Some of these changes are significant in that they allow us to do things more effectively than before. The difference can be anywhere from reducing code to avoiding errors that come from verbosity. In this presentation we will explore the language changes first. Then we will visit the additions to the JDK. Along the way we will also look at a few things that have been removed from Java as well.

#### **Session #2 @ WASATCH 1 : Architecture: The Hard Parts by Neal Ford**

Architecture has lots of difficult problems, many revolving around modularity and granularity. This session delves into many of the hard parts in architecture and makes many of the problems softer.

#### **Session #3 @ PARLEYS : Critical Questions You Should Be Asking by Matt Stine**

A lot of software development seems to be concerned with finding answers; troubleshooting issues; solving problems. But what if we're not asking the right questions? Learning to ask the right questions in the various contexts in which we work is one of the key, yet underemphasized skills that any competent engineer should have!

#### **Session #4 @ MILLCREEK : Essential Spring Boot by Craig Walls**

In this example-driven presentation, you'll learn how to leverage Spring Boot to accelerate application development, enabling you to focus coding on logic that drives application requirements with little concern for code that satisfies Spring's needs.

#### **Session #5 @ RED BUTTE : Understanding Kubernetes: Fundamentals by Jonathan Johnson**

So you have some code and it is in a bounded context with a REST API. You are on your way to Microservices. Next you wrap it in a container and now it is an image that others can run. Simple. Now what? No service is an island. Your service needs to log information, needs to scale and load balance between its clones. Your service needs environment and metadata way outside its context. What about where the service will run? Who starts it? What monitors its health? What about antifragility? Updates? Networking? Oh my. Services live in clusters and clusters live in data centers. Many concepts overlap with the features of cloud management. But don't get too flustered since, fundamentally, services are managed by clusters. There are several approaches to cluster management such as Docker Swarm, Mesos with Marathon and Kubernetes.

10:15 - 10:45 AM : BREAK

10:45 - 12:15 PM - Sessions

#### **Session #6 @ WASATCH 2 : Continuations and Fibers: The New Frontier for Java by Venkat Subramaniam**

We will program with Java quite differently in the future than we do today. The reason is that Java is embracing asynchronous programming like never before. This will have a huge impact on how we create services and web applications. In this presentations we will look at what asynchronous programming is, what continuations are, how they get implemented under the hood, and how we can benefit from them.

#### **Session #7 @ WASATCH 1 : Restructuring & Migrating Architectures by Neal Ford**

Patterns/antipatterns, techniques, engineering practices, and other details showing how to restructure existing architectures and migrate from one architecture style to another.

#### **Session #8 @ PARLEYS : Metaphysics of Software Design by Matt Stine**

NOTE: THIS IS A DISCUSSION ORIENTED SESSION. THERE WILL BE MINIMAL LECTURE AND SLIDES. According to Wikipedia, metaphysics is the branch of philosophy that studies the essence of a thing. This definition invites the question, "Does software design have an essence?" And if it does, would the discovery and understanding of this essence lead to a fundamental improvement in our ability to build well-designed software? Does design matter? What exactly is the design of software? Can we point to it? Or is it something immaterial?

#### **Session #9 @ MILLCREEK : Extreme Spring Boot by Craig Walls**

In this session, you'll learn how to take your Spring Boot skills to the next level, applying the latest features of Spring Boot. Topics may include Spring Boot DevTools, configuration properties and profiles, customizing the Actuator, and crafting your own starters and auto-configuration.

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### **Session #10 @ RED BUTTE : Understanding Kubernetes: Container Patterns by Jonathan Johnson**

Prerequisite: If you are unfamiliar with Kubernetes be sure to attend: Understanding Kubernetes: Fundamentals. Aha moments with apps in containers can be quite liberating. The mobile space is saturated with "there's an app for that". For us, we now expect "there's a container for that". "Write once, run anywhere" (WORA) has changed to "Package once, run anywhere" (PORA). As the community of containers is riding up the hype curve we will look at some of those top aha moments together. • Go rouge with Java 9 and jlink • Polyglot microservices • RabbitMQ broker in 2 minutes • Private Docker hub in a container • Composing a Pod with multiple containers • Database flavors for integration testing The epiphanies come from the modular simplicity. Leveraging namespaces and using cgroups, these apps share a common kernel without polluting the host OS. This simplifies installation, conflicts and uninstalls. The barriers to getting something running are decreased and normalized to a container run command. This is subtly powerful and liberating. With this simplicity comes complexity such as shared resources, file systems, mounts, networking and overall cluster management.

12:15 - 1:15 PM : LUNCH

1:15 - 2:45 PM - Sessions

### **Session #11 @ WASATCH 2 : Migrating to Java Modules: Why and How by Venkat Subramaniam**

Java Modules are the future. However, our enterprise applications have legacy code, a lots of it. How in the world do we migrate from the old to the new? What are some of the challenges. In this presentation we will start with an introduction to modules and learn how to create them. Then we will dive into the differences between unnamed modules, automatic modules, and explicit modules. After that we will discuss some key limitations of modules, things that may surprise your developers if they're not aware of. Finally we will discuss how to migrate current applications to use modules.

### **Session #12 @ WASATCH 1 : Architecture Foundations: Styles & Patterns by Neal Ford**

This session covers basic application and distributed architectural styles, analyzed along several dimensions (type of partitioning, families of architectural characteristics, and so on).

### **Session #13 @ PARLEYS : DDD and Microservices: Like Peanut Butter and Jelly by Matt Stine**

As an architectural style, microservices are here to stay. They have crossed the proverbial chasm, and now it's time to get to work. Microservices provide us with the ability to create truly evolutionary architectures composed of cohesive and autonomous components using well known and characterized distributed systems patterns. As we create and compose components across the hard boundary of the network, we become deeply interested in establishing the correct boundaries and has resulted in renewed interest in system design and decomposition. Fortunately, the tried and true practices of Domain-Driven Design are available to us.

### **Session #14 @ MILLCREEK : Spring Boot: Application management with Actuator by Craig Walls**

In this session, we'll explore the Spring Boot Actuator, a runtime component of Spring Boot that lets you peer inside a running application and, in some cases, even tweak configuration on the fly. We'll look at many of the Actuator's endpoints, learn how to customize and even create new endpoints, and see how to expose Actuator metrics to several popular instrumentation and monitoring systems.

### **Session #15 @ RED BUTTE : Understanding Kubernetes: Testing Patterns by Jonathan Johnson**

Prerequisite: If you are unfamiliar with Kubernetes be sure to attend: Understanding Kubernetes: Fundamentals. Highly cohesive and loosely coupled business functions can have a great impact on your agility to deliver new features. Microservices in containers is an effective implementation detail for continuous delivery. However, before you bite into that big sandwich, consider how provisioning a variety of data flavors as containerized endpoints could greatly improve your internal testing. How many times have you heard a colleague say, "Well that feature does not have integration tests because it requires a database with some specialized data"? Balderdash - put your data flavors in containers! Let's explore a solution to create a pipeline of data flavors. We use Docker images, Kubernetes Pods, Minikube to provision these endpoints. See how a Gradle project drives integration tests against these Pod endpoints, all ready for your continuous integration pipeline. In the end you can see the power of Consumer Driven Contracts against your dataset flavors.

2:45 - 3:00 PM : BREAK

3:00 - 4:30 PM - Sessions

### **Session #16 @ WASATCH 2 : Rediscovering JavaScript by Venkat Subramaniam**

Based on the book with the same title as this talk, this presentation will explore the modern features of JavaScript that make this a pleasant language to use. Come to this presentation to get a quick jumpstart on the elegant capabilities from passing arguments, to creating iterators, to destructuring, and working with classes using ES 6 and beyond.

### **Session #17 @ WASATCH 1 : Architecture Foundations: Characteristics & Tradeoffs by Neal Ford**

This session describes how architects can identify architectural characteristics from a variety of sources, how to distinguish architectural characteristics from domain requirements, and how to build protection mechanisms around key characteristics. This session also describe a variety of tradeoff analysis techniques for architects, to try to best balance all the competing concerns on software projects.

# Salt Lake Software Symposium

## -Session Schedule-

(event schedule as of May 3, 2019)

### **Session #18 @ PARLEYS : Domain-Driven Serverless Design by Matt Stine**

I love mashing up ideas and seeing what happens. Two areas of deep interest for me over the last two years have been Domain-Driven Design (DDD) and Serverless infrastructure (also known as Functions as a Service). What do these two areas have in common? The central concept of events, of course!

### **Session #19 @ MILLCREEK : Securing Spring: REST and OAuth2 by Craig Walls**

In this session, we'll explore Spring Security and OAuth2, including building an OAuth2 authorization server, fronting an API with a resource server, and verifying an OAuth2 access token's claims to ensure that the client is allowed to access the resource they are asking for.

### **Session #20 @ RED BUTTE : Code Analysis and Team Culture by Jonathan Johnson**

This is the droid you are looking for. The term "static code analysis" is a seemingly boring term for tools that harden your product and advance your team's engineering prowess. Within this droid are hundreds of rules designed to review your code for defects, hotspots and security weaknesses. Consider the resulting analysis as humble feedback from a personal advisor. The rules come from your community of peers, all designed to save your butt. We will explore techniques on how to add these checks to your IDE, your build scripts and your build pipelines.

4:30 - 4:45 PM : BREAK

4:45 - 6:15 PM - Sessions

### **Session #21 @ WASATCH 2 : Mastering JavaScript Modules by Venkat Subramaniam**

JavaScript modules are highly powerful but can be confusing with the number of options available to explore and import. In this presentation we will take a thorough look at what modules are, how to export from a module, how to import, and the dos and don'ts. This will help you get comfortable with modules as you develop applications with JavaScript libraries/frameworks, like Angular, React, Vue, etc.

### **Session #22 @ WASATCH 1 : Making Sense of Architectural Coupling with Connascence by Matt Stine**

Connascence is a term coined by Meilir Page-Jones in his article "Comparing Techniques by Means of Encapsulation and Connascence." It is a software quality metric that attempts to measure coupling between entities in three dimensions: strength, locality, and degree. Rather than describing architectural coupling as simply loose or tight, connascence gives us a tool to describe and measure the huge diversity in coupling that we encounter in systems. Relatedly, it also gives us a tool for encouraging high cohesion within modules. Connascence can also be divided into static and dynamic categories, with a long list of specific types such as connascence of name, meaning, timing and identity.

### **Session #23 @ PARLEYS : VDD: Value Driven Development - 10 Golden Rules for incremental Greatness by Michael Carducci**

On the NFJS tour, there are questions that seem to come up again and again. One common example is "How do we determine which new tools and technologies we should focus our energy on learning?" another is "How do we stop management from forcing us to cut corners on every release so we can create better and more maintainable code?" which, after awhile becomes "How can we best convince management we need to rewrite the business application?" There is a single meta-answer to all these questions and many others.

### **Session #24 @ MILLCREEK : The talking app: Voice-enabling Spring Applications by Craig Walls**

In this example-driven presentation, you will learn how to enable Spring applications for voice interaction through Alexa and Google Assistant. We'll look at three distinct options for voice-enabling Spring, including using Spring Cloud Function for voice request fulfillment, account-linking a conventional Alexa Skill and/or Google Action with Spring Security and OAuth2, or using Spring MVC/ WebFlux for direct handling of voice requests.

### **Session #25 @ RED BUTTE : Understanding Kubernetes: Serverless by Jonathan Johnson**

Prerequisite: If you are unfamiliar with Kubernetes be sure to attend: Understanding Kubernetes: Fundamentals From operating system on bare metal, to virtual machines on hypervisors, to containers orchestration platforms. How we run our code and bundle our applications continues to evolve. Serverless computing continues our evolutionary path for our architectures..

6:15 - 7:00 PM : DINNER

Keynote: Developers are the New Nuclear Physicists - Neal Ford

## **Saturday, May. 4**

7:30 - 8:15 AM : BREAKFAST

# Salt Lake Software Symposium

## -Session Schedule-

(event schedule as of May 3, 2019)

8:15 - 9:45 AM - Sessions

### **Session #26 @ WASATCH 2 : Type Inference in Java: Dos and Don'ts by Venkat Subramaniam**

Some developers simply hate type inference. And then there others who love it. Neither one of them is entirely right. In Java we have been making extensive use of type inference for several years without realizing it. The introduction of "var" in Java 10 has stirred up some surprising debate. In this presentation we will step back and review type inference in Java. Then we will dive deep into type inference in Java 10 and 11. We will wrap up the presentation will good recommendations on when to use type inference and when to avoid it.

### **Session #27 @ WASATCH 1 : A Vue perspective - Web Apps with Vue.js &#8212;&#160;Part I by Raju Gandhi**

In this session we will build a full application using Vue.js. We will start by discussing how you can start working with Vue, all the way to seeing what it takes to build an app with Vue, including state management and routing.

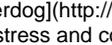
### **Session #28 @ PARLEYS : Architectures That Bend But Don't Break by Matt Stine**

All software architectures have to deal with stress. It's simply the way the world works! Stressors come from multiple directions, including changes in the marketplace, business models, and customer demand, as well as infrastructure failures, improper or unexpected inputs, and bugs. As software architects, one of our jobs is to create solutions that meet both business and quality requirements while appropriately handling stress.

### **Session #29 @ MILLCREEK : Machine Learning: Overview by Brian Sletten**

Machine Learning is a huge, deep field. Come get a head start on how you can learn about how machines learn.

### **Session #30 @ RED BUTTE : Understanding Kubernetes: Meshing Around with Istio by Jonathan Johnson**

Kubernetes out of the box is a strong platform for running and coordinating large collections of services, containers, and applications. As is, Kubernetes is powerful for many solutions.  Remember Underdog? He was a mild-mannered dog, but when stress and conflict were introduced to the plot he took a magic pill, he became a superhero. Istio is a superhero for Kubernetes.

9:45 - 10:00 AM : BREAK

10:00 - 11:30 AM - Sessions

### **Session #31 @ WASATCH 2 : Core Software Design Principles by Venkat Subramaniam**

Creating code is easy, creating good code takes a lot of time, effort, discipline, and commitment. The code we create are truly the manifestations of our designs. Creating a lightweight design can help make the code more extensible and reusable.

### **Session #32 @ WASATCH 1 : A Vue perspective - Web Apps with Vue.js &#8212;&#160;Part II by Raju Gandhi**

In this session we will build a full application using Vue.js. We will start by discussing how you can start working with Vue, all the way to seeing what it takes to build an app with Vue, including state management and routing.

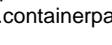
### **Session #33 @ PARLEYS : Art of Streaming by Daniel Hinojosa**

An \*overview\* of various popular streaming technologies on the JVM: Kafka Streams, Apache Storm, Spark Streaming, Apache Beam. Discuss "the bill of rights" of what to expect of all streaming libraries and frameworks, security, failover, exactly once processing.

### **Session #34 @ MILLCREEK : Machine Learning: Natural Language Processing by Brian Sletten**

Documents contain a lot of information. We'll introduce you to a variety of techniques to extract them.

### **Session #35 @ RED BUTTE : Team Culture: Katacoda, a Learning Medium by Jonathan Johnson**

We are continuously learning and keeping up with the changing landscapes and ecosystems in software engineering. Some technologies are difficult to learn or may take too much time for us to set up just to get to the key points of each technology. One of the reasons why you might be here at NFJS is to do exactly that -- too learn. Great! There are many mediums we use to learn and we often combine them for different perspectives. Books, how-to articles, GitHub readmes, blog entries, recorded talks on YouTube, and online courses. All these help us sort through the new concepts. I'm sure you have your favorites. Here we explore another learning medium to add to your toolbox: Katacoda 

11:30 - 12:15 PM : EXPERT PANEL DISCUSSION

12:15 - 1:00 PM : LUNCH

1:00 - 2:30 PM - Sessions

# Salt Lake Software Symposium

## -Session Schedule-

(event schedule as of May 3, 2019)

### **Session #36 @ WASATCH 2 : In Depth Kafka Streams and KSQL by Daniel Hinojosa**

Kafka is more than just a messaging queue with storage. It goes beyond that and with technology from Confluent open source it has become a full-fledged data ETL and data streaming ecosystem.

### **Session #37 @ WASATCH 1 : The Influential Engineer - Overcoming resistance to change by Michael Carducci**

By the end of this conference you will have learned many new tools and technologies. The easy part is done, now for the hard part: getting the rest of the team-and management-on board with the new ideas. Easier said than done. Whether you want to effect culture change in your organization, lead the transition toward a new technology, or are simply asking for better tools; you must first understand that having a "good idea" is just the beginning. How can you dramatically increase your odds of success? You will learn 12 concrete strategies to build consensus within your team as well as 6 technique to dramatically increase the odds that the other person will say "Yes" to your requests.

### **Session #38 @ PARLEYS : Micro Frontends FTW by Lyndsey Padget**

Microservices have helped us break apart back end services, but large front ends often remain problematic monoliths.

### **Session #39 @ MILLCREEK : Machine Learning: Deep Learning by Brian Sletten**

Deep Learning is an evolution of the capabilities of more conventional machine learning to take advantage of the extra data available from Big Data systems. With more data, many of the manual aspects of feature selection and other machine learning steps can be derived automatically. We will highlight many of the main deep learning frameworks and give you a hands on introduction to what is possible and how you can start to use them.

### **Session #40 @ RED BUTTE : Get Go-ing by Raju Gandhi**

If you are interested in a different approach to writing your next micro-service, or are knee deep in the DevOps world with Kubernetes and Docker (both written using Go) you need to know go. Come join me in a rather quick introduction to the language and it's merits and short-comings.

2:30 - 2:45 PM : BREAK

2:45 - 4:15 PM - Sessions

### **Session #41 @ WASATCH 2 : GRAAL The Magnificent! by Daniel Hinojosa**

Graal is a VM and an awesome VM at that. Able to run a variety of languages and fast. The execution times can be impressive too. This VM can run anything, JavaScript, Python 3, Ruby, R, JVM-based languages like Java, Scala, Kotlin, and LLVM-based languages such as C and C++.

### **Session #42 @ WASATCH 1 : Influential Engineer Part 2 - Persuasion Patterns by Michael Carducci**

In Part 1, you learned the core principles of influence and persuasion. How to we take this back to the office and apply what we've learned?

### **Session #43 @ PARLEYS : Git: Concepts & Strategies by Lyndsey Padget**

Git. It can be intimidating if you're accustomed to other kinds of source control management. Even if you're already using it and comfortable with the basics, situations can arise where you wish you understood it better. Developers often just want to write code and tell everyone else to take a hike, but the reality is that most of us work on teams where the feature-based code we write must be integrated, tested, and ultimately released.

### **Session #44 @ MILLCREEK : The Decentralized Web by Brian Sletten**

While the Web itself has strong decentralized aspects to how it is used, the backend technologies are largely centralized. The naming systems, the routing systems and the traffic that all points back to the same place for a website are all centralized technologies. This creates both a liability as well as a control point. In order to break free of some of these limitations, new technologies are emerging to provide a more decentralized approach to the Web.

### **Session #45 @ RED BUTTE : Infrastructure-As-A-Code with Ansible by Raju Gandhi**

An integral part to any DevOps effort involves automation. No longer do we wish to manage tens, hundreds or even thousands of servers by hand, even if that were possible. What we need is a programmatic way to create and configure servers, be those for local development, all the way to production. This is where tools like Ansible come into play. Ansible offers us a way to define what our server configurations are to look like using plain-text, version-controlled configuration files. Not only does this help with avoiding "snow-flakes", but it promotes server configuration to participate in the SDLC, pulling server configuration closer to the developers.

4:15 - 4:30 PM : BREAK

4:30 - 6:00 PM - Sessions

# Salt Lake Software Symposium

## -Session Schedule-

(event schedule as of May 3, 2019)

### **Session #46 @ WASATCH 2 : Grokking Generics by Daniel Hinojosa**

For those still grappling with Generics? This will be an attempt to clear the air about generics. What are wildcards? What is extends? What is super? What is covariance? What is contravariance? What is invariance? What is erasure? Why and when do I need this?

### **Session #47 @ WASATCH 1 : An Introduction to Micronaut by Michael Carducci**

Micronaut is a modern, JVM-based, full-stack framework for building modular, easily testable microservice applications.

### **Session #48 @ PARLEYS : Badass 101 by Lyndsey Padget**

Would Chuck Norris ask you to come hear him speak at a conference? No, he wouldn't. He would TELL you that you're coming, and then roundhouse kick you in the face if you gave him any more lip.

### **Session #49 @ MILLCREEK : WebAssembly by Brian Sletten**

What happens if web applications got really fast?

### **Session #50 @ RED BUTTE : Ansible (best) practices by Raju Gandhi**

Ansible, like Git, aims to be a simple tool. The benefit here is that the level of abstraction that Ansible offers is paper-thin, with no complicated workflows, or opinions enforced by the tool itself. The downside is that without a prescribed approach to Ansible, developing your playbooks often becomes a case of trial-and-error. As engineers steeped in the DevOps mindset we must be able to use the tool effectively, allowing us to accelerate **and** shorten the lead time from development to production.