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<td>Software Architecture Fundamentals - Neal Ford and Mark Richards</td>
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<td>Java Upgrade - Kenneth Kousen</td>
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<td>An Introduction to Video Game Development - Raju Gandhi</td>
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<td>ES2015: Using Java 9 Modular Programming today! Pratik Patel</td>
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<td>Measuring Quality of design (1/2 day workshop) (continued) Pratik Patel</td>
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## UberConf
Westin Westminster
July 19 - 22, 2016

### Fri, Jul. 22, 2016

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<th>Time</th>
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<td>8:00 - 9:00 AM</td>
<td>Westminster Ballroom</td>
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| 9:00 - 10:30 AM | Westminster Ballroom          | **Docker for Devs**  
Christopher Judd  
**Clojure Workshop**  
Howard Lewis Ship and Neal Ford  
**Distributed Systems in One Lesson**  
Tim Berglund  
**Full Stack JavaScript with HTML5, Node.js and MongoDB**  
Danny Brian  
**Finding Security Defects through Threat Modeling**  
Ksenia Dmitrieva  
**Taming the Blockchain with Ethereum**  
Brian Sletten  
**Modeling for Web Architects**  
Nathaniel Schutta  
**The Walking TDD**  
Daniel Hinojosa  
**Top 5 Reasons Why Improvement Efforts Fail**  
Arty Starr  
**Twelve Ways to Make Code Suck Less**  
Venkat Subramaniam  
**Modular Architecture - Refactoring the Monolith**  
Kirk Knoernschild |
| 10:30 - 12:45 AM | Westminster Ballroom          | **MORNING BREAK**                                                                |
| 10:45 - 12:15 PM | Westminster Ballroom          | **Docker for Devs**  
(continued)  
Christopher Judd  
**Clojure Workshop (continued)**  
Howard Lewis Ship and Neal Ford  
**3/4 Day Learn to use Gradle (and understand it)**  
Workshop  
Brent Laster  
**Full Stack JavaScript with HTML5, Node.js and MongoDB**  
(continued)  
Danny Brian  
**Building Java Applications with Cassandra**  
Tim Berglund  
**Architecture and Innovation**  
Brian Sletten  
**Modeling for Web Architects (continued)**  
Nathaniel Schutta  
**VDD: Value Driven Development - 10 Golden Rules for incremental Greatness**  
Michael Carducci  
**Stop Getting Crushed By Business Pressure**  
Arty Starr  
**What’s Brewing in Java 9**  
Venkat Subramaniam  
**Modularity, Microservices, and Modern Architectural Paradigms**  
Kirk Knoernschild |
| 12:15 - 1:30 PM | Westminster Ballroom & South Courtyard | **LUNCH**                                                                         |
| 1:30 - 3:00 PM | Westminster Ballroom          | **Frege for Java Programmers**  
Venkat Subramaniam  
**Web Security Workshop**  
Brian Sletten  
**3/4 Day Learn to use Gradle (and understand it)**  
Workshop (continued)  
Brent Laster  
**Pattern Matching Makes You Powerful! (In All Languages!)**  
Danny Brian  
**Automating Application Security Testing: Be Offensive!**  
Aaron Cure and Steve Kostan  
**Cloud Infrastructure at Scale**  
Dan Woods  
**Scala for Java Developers**  
(1/2)  
(Laptops Optional)  
Daniel Hinojosa  
**Spark Workshop**  
Tim Berglund  
**Flow Theory**  
Arty Starr  
**Bulletproof JavaScript**  
Nathaniel Schutta  
**Modularity, Microservices, and Modern Architectural Paradigms (continued)**  
Kirk Knoernschild |
| 3:00 - 3:15 PM | Westminster Ballroom          | **AFTERNOON BREAK**                                                              |
| 3:15 - 4:45 PM | Westminster Ballroom          | **Interactive Development and Fast Feedbacks with Java 9 REPL**  
Venkat Subramaniam  
**Web Security Workshop**  
Brian Sletten  
**3/4 Day Learn to use Gradle (and understand it)**  
Workshop (continued)  
Brent Laster  
**Pattern Matching Makes You Powerful! (In All Languages!)**  
Daniel Hinojosa  
**JavaScript Kata**  
Nathaniel Schutta  
**Groovy in the Cloud**  
Dan Woods  
**Scala for Java Developers**  
(2/2)  
(Laptops Optional)  
Daniel Hinojosa  
**Spark Workshop (continued)**  
Tim Berglund  
**Learn Your Way to AWESOME.**  
Arty Starr  
**Stop writing code and start solving problems**  
Michael Carducci  
**Principles of Agile Architecture**  
Kirk Knoernschild |
| 4:45 - 5:00 PM | Westminster Ballroom          | **CONCLUSION OF UBERCONF 2016 - THANK YOU FOR ATTENDING!**                        |
Tuesday, Jul. 19

8:00 - 9:00 AM : EARLY REGISTRATION: PRE-CONFERENCE WORKSHOP ATTENDEES ONLY - WESTMINSTER BALLROOM FOYER

9:00 - 6:00 PM - Sessions

Session #1 @ LAKEHOUSE : Software Architecture Fundamentals by Neal Ford and Mark Richards
The job Software Architect places in the top ten of most annual surveys of best jobs, yet no clear path exists from Developer to Architect. Why aren’t there more books and training materials to fill this demand? First, software architecture is a massive multidisciplinary subject, covering many roles and responsibilities, making it difficult to teach because so much context is required for the interesting subjects. Second, it’s a fast moving discipline, where entire suites of best practices become obsolete overnight. This workshop provides the fundamentals to transition from developer to architect, or to help “accidental” architects.

Session #2 @ MEADOWBROOK : Java Upgrade by Kenneth Kousen
Learn to use the new features of Java 8, 9, and beyond, including lambda expressions, method references, and the streaming API.

Session #3 @ STANDLEY II : Application development with Docker, Kubernetes, and OpenShift by Steven Pousty
This workshop prepares web and application developers to build applications with Docker, Kubernetes, and OpenShift. We’ll start with a short introduction to Platform-as-a-Service, Docker, and Kubernetes, which are some of the foundational pieces of OpenShift.

Session #4 @ STANDLEY I : Building Reactive Applications by Venkat Subramaniam
Reactive Programming is receiving quite a bit of attention and for good reasons. It’s a nice logic next step from functional programming. It takes the concept of function composition and lazy evaluations to the next level. It streamlines handling of many critical issues that are architectural in nature: resilience, scale, responsiveness, and messaging.

Session #5 @ FLATIRONS (2ND FLOOR) : Hacking & Hardening Java Web Applications Workshop by Christopher Judd
It seems like everyday there is a new headline about a security breach in a major company’s web application. These breaches cause companies to lose their credibility, cost them large sums of money, and those accountable undoubtedly lose their jobs. Security requires you to be proactive. Keep your employer out of the headlines by learning some key security best practices.

Session #6 @ WAVERLY : Enterprise Messaging Foundations by Jeremy Deane
This two session workshop covers messaging concepts, standards (JMS, EIP), and technologies including hands-on exercises with ActiveMQ, Spring, and Camel.

Session #7 @ LONG’S PEAK (2ND FLOOR) : Apache Cassandra, Spark and Spark Streaming for Real Time Big Data Analytics by Rohit Bhardwaj
Apache Cassandra is one of the best solutions for storing and retrieving data. We will explore data analytics cluster computing framework with real-world examples. It is 100x faster than Hadoop! We will start with an introduction to Apache Cassandra. We will explore challenges encountered when attempting to scale with relational databases, and how NoSQL databases like Cassandra address those problems. It reviews the Cassandra architecture, benefits, and how to use the Cassandra read and write paths. Later, you will learn how to effectively and efficiently solve analytical problems using Apache Spark, Apache Cassandra, and DataStax. You will learn about Spark API, Spark-Cassandra Connector, Spark SQL, Spark Streaming, and fundamental performance optimization techniques. Big Data applications nowadays require a faster speed of data processing and analysis.

Session #8 @ WINDSOR : An Introduction to Video Game Development by Danny Brian
With many AAA video games in its portfolio, Unity has become a powerhouse within the game development and simulation industry. But Unity is more than a game engine — it’s a complete ecosystem of tools, workflows, and integrations. Very small development teams and even individual hobby developers can create great games with Unity, for any platform, 3D or 2D.

Session #9 @ COTTON CREEK I : Angular Workshop by Raju Gandhi
Angular is a new JavaScript framework from Google. If you are looking into developing rich web applications, Angular is your friend. Angular embraces HTML and CSS, allowing you to extend HTML towards your application, and uses plain JavaScript which makes your code easy to reuse, and test. In this workshop we will start from the ground up, and build our way through a simple application that will let us explore the various constructs, and the familiarize ourselves with some of the new terminology in Angular.

Session #10 @ COTTON CREEK II : React.js Workshop by Pratik Patel
React.js is a view library from Facebook for building performant user-interfaces in JavaScript. In this session, we’ll explore React.js and understand why it’s a great step forward for building complex UI’s that run fast. We’ll code up an example web application using React.js and step through the basics of using the library while discussing concepts like the virtual DOM and components.
ÜberConf

(Session Schedule)
(event schedule as of July 20, 2016)

5:00 - 6:30 PM : MAIN UBERCONF REGISTRATION - WESTMINSTER BALLROOM FOYER
6:30 - 7:30 PM : DINNER - WESTMINSTER BALLROOM
Keynote: The pursuit of perfection in engineering and art - Michael Carducci
8:30 - 10:30 PM : OPENING NIGHT OUTDOOR RECEPTION - SOUTH COURTYARD

Wednesday, Jul. 20

7:00 - 8:00 AM : 5K FUN RUN & POWER WALK - MEET IN LOBBY
7:30 - 8:30 AM : BREAKFAST & LATE REGISTRATION - WESTMINSTER BALLROOM
8:30 - 10:00 AM - Sessions

Session #11 @ LAKEHOUSE : Web Apps with AngularJS - Part I by Raju Gandhi
In this session, we will take a look at Angular - the powerful MVVM SPA framework from Google. We will discuss some of the terminology that Angular offers, and see how we can use that to develop highly interactive, dynamic web applications. See "Detail" for a list of topics I cover and the Github repo URL

Session #12 @ MEADOWBROOK : Cloud Native Spring by Craig Walls
In this session, we'll explore Spring Cloud, the extension to Spring which addresses many of the common challenges of developing cloud native applications. We'll focus primarily on Spring Cloud's support for centralized configuration, service discovery, and failover/monitoring.

Session #13 @ STANDLEY II : Continuous Delivery Workshop, part 1 of 3: Deployment Pipelines by Neal Ford
The first part of the Continuous Delivery workshop covers the differences between _continuous integration_, _continuous deployment_, and _continuous delivery_. It also introduces the _deployment pipeline_, along with usage, patterns, and anti-patterns. This part concludes with some applied engineering principles.

Session #14 @ STANDLEY I : Functional Java, Part 1 by Kenneth Kousen
Understand Java from a functional programming point of view. This part covers the basics of lambdas and streams, emphasizing functional programming by transforming collections using the stream approach.

Session #15 @ WAVERLY : Identity by Brian Sletten
How do we define identity in a distributed software system? How do we manage it securely? How do we make identity assertions and verify those claims? Technologies don't magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Identity and how it cross-cuts the distributed systems we are building.

Session #16 @ LONG'S PEAK (2ND FLOOR) : Solving real problems without reading code by Tudor Gîrba
Too often, developers drill into the see of data related to a software system manually armed with only rudimentary techniques and tool support. This approach does not scale for understanding larger pieces and it should not perpetuate. Software is not text. Software is data. Once you see it like that, you will want tools to deal with it.

Session #17 @ WINDSOR : Introduction to Apache Cassandra by Rohit Bhardwaj
In this talk we will explore topology of cassandra cluster. We will explore how data is spread around a cluster in cassandra? Then we will look at snitches and launch Cassandra clusters using Docker. In the end we will look at nodetool commands to work with cluster. We will explore replication strategies within Cassandra. In the end we will look at CQL (Cassandra Query Language), which is used for interacting with Cassandra. We will also explore how Cassandra is integrated with Datastax framework.

Session #18 @ COTTON CREEK I : Understanding JVM Futures by Daniel Hinojosa
Starting with JDK 5, we have had Futures, and they mostly went ignored. Now with concurrency and reactive technology in demand, it is essential that we understand what futures are, and how to handle them and make use of their power in asynchronous systems.

Session #19 @ COTTON CREEK II : Refactoring the Monolith: LIVE! by Matt Stine
Many of us would love to embrace microservices in our day-to-day work. But most of us don’t have the opportunity to start over with a pure greenfield effort. We have to understand how to refactor our existing monolithic applications toward microservices. Practical steps include building new features as microservices, leveraging anti-corruption layers, strangling the monolith.
Session #20 @ WESTMINSTER BALLROOM I-II : Architectural Modularity by Mark Richards
It seems like all we talk about these days is making our architectures more modular. Buy why? In this session I will discuss the drivers and reasons why it is essential to move towards a level of modularity in our architectures. I will discuss and show real-world use cases of distributed modular architectures (specifically microservices and service-based architecture), and then discuss in detail the core differences between microservices and service-based architecture and when you should consider each. I'll end the talk by discussing the most effective way of migrating to modular distributed architectures.

Session #21 @ WESTMINSTER III-V : 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 #22 @ LAKEHOUSE : Web Apps with AngularJS - Part II by Raju Gandhi
In this session, we will take a look at Angular - the powerful MVVM SPA framework from Google. We will discuss some of the terminology that Angular offers, and see how we can use that to develop highly interactive, dynamic web applications. See "Detail" for a list of topics I cover and the Github repo URL

Session #23 @ MEADOWBROOK : Introduction to Reactive by Daniel Hinojosa
Reactive is a the latest buzzword to consume our industry. This presentation distills and defines reactive systems, describe the difference between reactive architecture vs. reactive programming, describe common patterns, and demos the popular reactive JVM technologies like RXJava, and Akka.

Session #24 @ STANDLEY II : Continuous Delivery Workshop, part 2 of 3: Testing, Synergistic Practices, and Deployment by Neal Ford
Continuous Delivery relies on a variety of interlocking engineering practices to work efficiently; this session covers three related topics. First, I cover the role of testing and the testing quadrant. Second, I specifically cover version control usage and offer alternatives to feature branching like toggle and branch by abstraction. Third, I describe some incremental release strategies, along with their impact on other stages of project lifecycle.

Session #25 @ STANDLEY I : Functional Java, Part 2 by Kenneth Kousen
Functional features in Java, including parallel streams, the java.util.function package, the Optional data type, and reduction operations.

Session #26 @ WAVERLY : Privilege by Brian Sletten
Authenticated Identities are the first step to establish Privilege. Most systems fail to have sufficiently, deeply entrenched notion of how to apply and minimize privilege to avoid data and systems from being abused. Technologies don't magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Privilege and how it cross-cuts the distributed systems we are building.

Session #27 @ LONG’S PEAK (2ND FLOOR) : Storytelling in a technical world by Tudor Gîrba
Our technical world is governed by facts. In this world Excel files and technical diagrams are everywhere, and too often this way of looking at the world makes us forget that the goal of our job is to produce value, not to fulfill specifications. Feedback is the central source of agile value. The most effective way to obtain feedback from stakeholders is a demo. Good demos engage. They materialize your ideas and put energies in motion. They spark the imagination and uncover hidden assumptions. They make feedback flow. But, if a demo is the means to value, shouldn’t preparing the demo be a significant concern? Should it not be part of the definition of done?

Session #28 @ WINDSOR : NoSql - Cassandra Data Modeling Strategies for highly available cloud systems by Rohit Bhardwaj
In this talk we will take a deep dive to how to design data models for highly available cloud systems. We will start with exploring the Conceptual data model, Application flow, Logical data model and physical data model. We will review Chebotko Diagrams and how they help with modeling of no sql database. As part of this exercise, We will explore Cassandra data modeling goals to spread data evenly around the cluster and minimize the number of partitions read. Key takeaways for this talk will be for a developer and architect to understand how to design nosql database using strategies discussed.

Session #29 @ COTTON CREEK I : Cloud Native Spring UIs by Craig Walls
In this session, we look at how to develop clients that consume microservices in the cloud. We'll look at how to solve challenges of cross-origin request sharing (without employing CORS), security, and loose-coupling with regard to service addresses. This session will build upon what was learned in “Cloud Native Spring”, adding the notion of a service gateway to the stack.
Session #30 @ COTTON CREEK II: The Pragmatic Programmer Revisited by Matt Stine
While rummaging through some books the other day, I came across my copy of The Pragmatic Programmer. Flipping to the copyright page, I realized that it had been 16 years since its publication. Many of our careers have been deeply affected by reading and considering the many nuggets of wisdom contained in this book, and it is near the top of multiple recommended reading lists.

Session #31 @ WESTMINSTER BALLROOM I-II: Microservices AntiPatterns by Mark Richards
Even though teams are gaining more experience in designing and developing microservices, nevertheless there is still a lot to learn about this highly distributed and somewhat complicated architecture style. Unfortunately, lots of microservices anti-patterns and pitfalls emerge during this learning curve. Learning about these anti-patterns and pitfalls early on can help you avoid costly mistakes during your development process. While anti-patterns are things that seem like a good idea at the time and turn out bad (see martinfowler.com/bliki/AntiPattern.html), pitfalls are those practices that are never a good idea at the time - ever. In this session I will cover some of the more common anti-patterns you will likely encounter while creating microservices, and most importantly describe some of the techniques for avoiding these anti-patterns.

Session #32 @ WESTMINSTER III-V: Pragmatics of TDD to Evolve Design by Venkat Subramaniam
Test Driven Design, we hear is a great way to create lightweight design that is easier to maintain and evolve. Unfortunately, just writing test cases mechanically do not lead to good design. In fact, it may really not lead us anywhere we want to really go!

12:00 - 1:00 PM: LUNCH & OUTDOOR BREAK - WESTMINSTER BALLROOM & SOUTH COURTYARD

Session #33 @ LAKEHOUSE: Angular 2 for Java Developers by Ben Ellingson
It's a great time to start using Angular 2. At this time it is in the release candidate stage and many production apps are being deployed. In this session, we will cover the basics of creating Angular 2 apps and we will show how to integrate with existing Java web applications. At a high-level we'll cover the basics of TypeScript, modules, components, templates, services, routing, and dependency injection.

Session #34 @ MEADOWBROOK: Reactive Streaming with RXJava by Daniel Hinojosa
ReactiveX is a set of Reactive Extensions developed by Netflix, and is developed for various programming languages, like Java, Scala, and Clojure. ReactiveX overhauls the observable design pattern to achieve reactive goals. This presentation will solely focus on the Java version of ReactiveX, RXJava.

Session #35 @ STANDLEY II: Continuous Delivery Workshop, part 3 of 3: Infrastructure and Data by Neal Ford
Two big stumbling blocks for Continuous Delivery adaptation are interactions with operations and the keepers of data. First in this session, I cover operations, DevOps, and programmatic control of infrastructure. Second, I discuss how to incorporate databases and DBA's into the Continuous Integration and Continuous Delivery process.

Session #36 @ STANDLEY I: Refactoring to Java 8 by Kenneth Kousen
Java SE 8 introduces many new features that can simplify your code. Using streams, lambdas, and the new Optional type all change the way we write Java. In this presentation, we'll work through a series of examples that show how to rewrite existing code from Java 7 or earlier using the new Java 8 approach.

Session #37 @ WAVERLY: Integration by Brian Sletten
Data integration costs are well beyond what they should be for such a crucial business function. The good news is that they needn't be. By relying on integration-friendly standards and technologies that were designed to support sharing information, we can reduce these costs while increasing our business capabilities. Technologies don't magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Integration and how it cross-cuts the distributed systems we are building.

Session #38 @ LONG'S PEAK (2ND FLOOR): Software in pictures by Tudor Gîrba
Software has no shape. Just because we happen to type text when coding, it does not mean that text is the most natural way to represent software. We are visual beings. As such we can benefit greatly from visual representations. We should embrace that possibility especially given that software systems are likely the most complicated creations that the human kind ever produced. Unfortunately, the current software engineering culture does not promote the use of such visualizations. And no, UML does not really count when we talk about software visualizations. As a joke goes, a picture tells a thousand words, and UML took it literally. There is a whole world of other possibilities out there and as architects we need to be aware of them. In this talk, we provide a condensed, example-driven overview of various software visualizations starting from the very basics of what visualization is.

Session #39 @ WINDSOR: Cloud Native Data Integration by Craig Walls
In this session, we'll look at Spring Cloud Data Flow, a cloud native programming and operating model for composable data microservices on a structured platform.
Session #40 @ COTTON CREEK I : Solving Analytical Problems using Apache Spark by Rohit Bhardwaj
In this talk, we will explore why Spark is the most prominent solution as compared to just Hadoop. We will look at MapReduce and how Spark makes the creation of Big Data algorithms simple and faster. Next, we will explore Spark Context and how Resilient Distributed Dataset (RDD) to help with the establishment of Directed Acyclic Graph (DAG); Transformations using map and filter; Actions using collect, count and reduce. Later we will explore the Spark Cassandra connector. We will look at Spark API and Spark SQL. We will also discuss how DataStax helps give a high level of stability to open source Apache Spark and Apache Cassandra projects. Key takeaways from this talk will be for a developer and architect to understand how Apache Spark and Apache Cassandra helps in implementing enterprise level analytical solutions. It is 100x faster than Hadoop!

Session #41 @ COTTON CREEK II : Concourse: CI that scales with your project by Matt Stine
Concourse (http://concourse.ci/) is a CI system composed of simple tools and ideas. Concourse can express entire pipelines, integrating with arbitrary resources, or it can be used to execute one-off tasks, either locally or in another CI system. Concourse attempts to reduce the risk of adoption by encouraging practices that keep your project loosely coupled to the details of your continuous integration infrastructure.

Session #42 @ WESTMINSTER BALLROOM I-II : Microservices Pitfalls by Mark Richards
Even though teams are gaining more experience in designing and developing microservices, nevertheless there is still a lot to learn about this highly distributed and somewhat complicated architecture style. Unfortunately, lots of microservices anti-patterns and pitfalls emerge during this learning curve. Learning about these anti-patterns and pitfalls early on can help you avoid costly mistakes during your development process. While anti-patterns are things that seem like a good idea at the time and turn out bad (see martinfowler.com/bliki/AntiPattern.html), pitfalls are those practices that are never a good idea at the time - ever. In this session I will cover some of the more common pitfalls you will likely encounter while creating microservices, and most importantly describe some of the techniques for avoiding these pitfalls.

Session #43 @ WESTMINSTER III-V : Towards an Evolutionary Architecture by Venkat Subramaniam
Big up front design is discouraged in agile development. However, we know that architecture plays a significant part in software systems. Evolving architecture during the development of an application seems to be a risky business.

2:30 - 2:45 PM : BREAK
2:45 - 4:15 PM - Sessions

Session #44 @ LAKEHOUSE : Measuring Quality of design (1/2 day workshop) by Venkat Subramaniam
Before spending substantial effort in refactoring or altering design, it would be prudent to evaluate the current quality of design. This can help us decide if we should proceed with refactoring effort or a particular alteration of design. Furthermore, after evolving a design, using some design metrics would help us to evaluate if we have improved on the design front.

Session #45 @ MEADOWBROOK : ES2015: Using tomorrow’s JavaScript today! by Pratik Patel
You don’t have to wait to use the next generation JavaScript language until all browsers support it - using transpilation you can start using it today and future proof your code and make it more elegant NOW! See the details for the topics covered.

Session #46 @ STANDLEY II : Java 9 Modular scalable development by Rohit Bhardwaj
Ever wonder when Java will be out of class path hell? Java 9 is for application developers, library developers by enablement of a scalable platform, greater platform integrity, and improved performance. In this talk, we will explore Project Jigsaw, HTTP 2.0, Lightweight JSON API and many other features.

Session #47 @ STANDLEY I : You’ve got Microservices...Let’s Secure Them by Steven Pousty
You went ahead a built a whole new set of shiny microservices. While doing this you realize you can no longer rely on you Application Server to handle all the authentication. Oh, and of course one of your teams used Node.JS How are you going to secure all these endpoints so that the end user doesn’t have to authenticate against each one.

Session #48 @ WAVERLY : Evolution by Brian Sletten
Our biological world changes gracefully. Our information world changes much less so. How can we embrace the inevitable technological, procedural and schematic flux that we know is going to visit upon us at some point? Technologies don’t magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Evolution and how it cross-cuts the distributed systems we are building.

Session #49 @ LONG’S PEAK (2ND FLOOR) : Spock Workshop by Kenneth Kousen
Learn how to use the Spock testing framework in both Java and Groovy applications. This half-day workshop will demonstrate testing with both Spock and JUnit together for Java projects, Groovy projects, and projects that combine both technologies.
ÜberConf
-Session Schedule-
(event schedule as of July 20, 2016)

Session #50 @ WINDSOR : Reactive Systems with Akka and Java by Daniel Hinojosa
A set various tools to write reactive, concurrent, fault-tolerant applications and services using immutable data, asynchronous message passing using local and remote actors, software transactional memory, and supervised systems. This entire presentation is done in Java.

Session #51 @ COTTON CREEK I : Graph Database Fundamentals by Jeremy Deane
This half-day workshop will cover the fundamentals of Graph Databases with hands-on exercises using Neo4J.

Session #52 @ COTTON CREEK II : Confessions of an Agile Product Manager by Matt Stine
Over the past year I’ve had the pleasure of wearing the hat of “product manager” for the Spring Cloud Services team at Pivotal, operating using a distributed variant of the Pivotal Labs process. Along the way I’ve learned many valuable lessons that I hope you’ll be able to apply to your product development efforts.

Session #53 @ WESTMINSTER BALLROOM I-II : Reactive Architecture Patterns 1 by Mark Richards
Reactive architecture patterns allow you to build self-monitoring and self-healing systems that can react to both internal and external conditions without human intervention. How would you like to design systems that can automatically grow as the business grows, automatically handle varying load (cyber Monday?), and automatically handle (and repair) internal and external errors, all without human interaction? I’ll show you how to do this with your current technology stack (no special languages, tools, frameworks, or products). In this two-part session I will leverage both slides and live coding using Java and RabbitMQ to describe and demonstrate how to build reactive systems. Get ready for the future of software architecture - that you can start implementing on Monday.

Session #54 @ WESTMINSTER III-V : Spring Boot and Beyond by Craig Walls
In this session, we’ll open the hood on Spring Boot and see how it works. Using this knowledge, we’ll look at ways to optimize Spring Boot, override autoconfiguration, and create custom extensions to Spring Boot’s Actuator.

4:15 - 4:30 PM : BREAK
4:30 - 6:00 PM - Sessions

Session #55 @ LAKEHOUSE : Measuring Quality of design (1/2 day workshop) (continued) by Venkat Subramaniam
Before spending substantial effort in refactoring or altering design, it would be prudent to evaluate the current quality of design. This can help us decide if we should proceed with refactoring effort or a particular alteration of design. Furthermore, after evolving a design, using some design metrics would help us to evaluate if we have improved on the design front.

Session #56 @ MEADOWBROOK : Continuous Integration for Web & JavaScript Projects by Pratik Patel
This session covers the basics of setting up a Web & JavaScript project for Continuous Integration. The goal is to apply the same engineering practices as for projects coded in Java. Topics covered: * Build tool for JS: Grunt * Integrating JSHint * Automated testing setup * Other tools as part of a build process: Webpack, transpilation

Session #57 @ STANDLEY II : 10x productivity for Developers and Architects by Rohit Bhardwaj
Productivity is key to success in software development. We will be exploring different principles, so you do not have to work for 60 to 80 hours a day? Are you multitasking and nothing is getting done? Do you feel that there are lots of moving parts and nothing is getting accomplished? What can you do to make a difference in your organization? What techniques can you adopt to eliminate distractions? How to solve a given problem more efficiently? These will be some of the questions and challenges we will address in this talk. Developers and Architects are designers, problem solvers, and innovative, creative artists. Software design is an art, which requires both left, and right brains to be active so you can understand what customer needs. Next, we will explore habits and tools to plan, learn, research, organize, teach, develop, mentor and architect.

Session #58 @ STANDLEY I : 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 #59 @ WAVERLY : Secrecy by Brian Sletten
Information conveys value as it travels around our systems, resting for a time in our data stores. The value we get out of it is sometimes matched by the value others would get from it as well. We need mechanisms to protect sensitive information from prying eyes and control with whom we share it. Technologies don't magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Secrecy and how it cross-cuts the distributed systems we are building.
ÜberConf
-Session Schedule-
(event schedule as of July 20, 2016)

Session #60 @ LONG’S PEAK (2ND FLOOR) : Spock Workshop (continued) by Kenneth Kousen
Learn how to use the Spock testing framework in both Java and Groovy applications. This half-day workshop will demonstrate testing with both Spock and JUnit together for Java projects, Groovy projects, and projects that combine both technologies.

Session #61 @ WINDSOR : HTML5 Revisited by Nathaniel Schutta
The technology space is a lot like the ocean - miss one wave and another will come along shortly; most shiny new things begin with a sizable amount of hype as everyone rushes to play with the new toy. This cycle is often met with a level of disappointment as we quickly discover our new bauble isn’t all that and a bag of chips so we rush off to the next best thing ever.

Session #62 @ COTTON CREEK I : Graph Database Fundamentals (continued) by Jeremy Deane
This half-day workshop will cover the fundamentals of Graph Databases with hands-on exercises using Neo4J.

Session #63 @ COTTON CREEK II : Learning 5 JVM Languages in the Next 5 Years by Daniel Hinojosa
Take control of your knowledge portfolio and be in demand! Your command of the top JVM languages; Java 8, Groovy, Scala, JRuby, and Clojure; will set you apart from the rest. This presentation will introduce each of these languages, highlight common ground, and show some stark differences.

Session #64 @ WESTMINSTER BALLROOM I-II : Reactive Architecture Patterns 2 by Mark Richards
Reactive architecture patterns allow you to build self-monitoring and self-healing systems that can react to both internal and external conditions without human intervention. How would you like to design systems that can automatically grow as the business grows, automatically handle varying load (cyber Monday?), and automatically handle (and repair) internal and external errors, all without human interaction? I’ll show you how to do this with your current technology stack (no special languages, tools, frameworks, or products). In this two-part session I will leverage both slides and live coding using Java and RabbitMQ to describe and demonstrate how to build reactive systems. Get ready for the future of software architecture - that you can start implementing on Monday.

Session #65 @ WESTMINSTER III-V : Spring Security Rebooted by Craig Walls
Security is an important aspect of any application. For many years, Spring Security has been the go-to framework for securing Spring-based application. But historically Spring Security has been cumbersome to work with, involving an enormous amount of XML configuration to shape an application’s security scheme. In recent versions of Spring Security, however, XML-based configuration has taken a backseat to a powerful Java-based configuration option. Spring Security’s Java-based configuration offers a fluent API for defining the security constraints for an application which is easy to read and eliminates the need for klunky XML configuration. On top of Spring Security’s own configuration improvements, Spring Boot autoconfiguration makes it incredibly easy to get started securing your application, minimizing even the amount of Java configuration required.

6:00 - 7:30 PM : DINNER - WESTMINSTER BALLROOM & SOUTH COURTYARD
Keynote: Keynote: Why does Yesterday’s Best Practice Become Tomorrow’s Antipattern? - Neal Ford
8:30 - 10:00 PM - Sessions

Session #66 @ LAKEHOUSE : Blockchain Beyond Bitcoin by Neal Ford
This session takes a deep dive on the design and implementation of the proof of work algorithm at the heart of most cryptocurrencies, along with details of how difficult it is to spoof, how transactions work, what happens when all the coins have been mined, and other practical considerations.

Session #67 @ MEADOWBROOK : Managing Your Manager by Kenneth Kousen
Technical people value expertise above all, but the ability to communicate with others in your organization is a big key to success. This talk will present helpful techniques, like reflective listening and the Myers-Briggs Type Indicator, that enable you to quickly decide how to lead your manager where you need him or her to go.

Session #68 @ STANDLEY II : Leading Technical Change by Nathaniel Schutta
Technology changes, it’s a fact of life. And while many developers are attracted to the challenge of change, many organizations do a particularly poor job of adapting. We’ve all worked on projects with, ahem, less than new technologies even though newer approaches would better serve the business. But how do we convince those holding the purse strings to pony up the cash when things are “working” today? At a personal, how do we keep up with the change in our industry?

Session #69 @ STANDLEY I : Fully Optimize Your Memory by Michael Carducci
Unlock your latent photographic memory. In this session you’ll learn failsafe techniques and systems that allow you to never forget names, appointments, or numbers. In the process you’ll be more effective and imaginative at work; improve reading speed and comprehension, and shorten study times.
Session #70 @ WAVERLY : Trust by Brian Sletten
Learning to Trust in a distributed system is a complex and harrowing process. By combining the notions of Identity and Secrecy we can build protocols that help us achieve it. Technologies don’t magically become solutions. They are used within domain, design and deployment contexts. This talk will focus on the singular notion of Trust and how it cross-cuts the distributed systems we are building.

Session #71 @ LONG’S PEAK (2ND FLOOR) : Personal Agility with the Pomodoro Technique by Daniel Hinojosa
Time is very precious and is often threatened by phone calls, emails, co-workers, bosses, and most of all, yourself. The Pomodoro Technique reigns in unfocused time and gives your work the urgency and the attention it needs, and it’s done with a kitchen timer.

Session #72 @ WINDSOR : DX: why developers should care about the tools they use by Tudor Girba
About at the same time when Conway was coining his now famous law, Marshall McLuhan warned us that “we shape our tools, and thereafter our tools shape us”. IDEs are supposed to be the tools software engineers use. Yet, most IDEs are primarily focused on the active part of writing code, while developers actually spend most of their time understanding systems. Assessing software systems is perceived as rather secondary and mostly supported in the small. The IDE is not as integrated as it could or should be. We have to rethink the developer experience because software is immaterial and the tools we use are the only way through which we experience software. The tools we use matter. In this talk, we take a systematic look at how a developer experience could look like and what an environment for developers should be made of. We exemplify the message with live demos of the Glamorous Toolkit (http://gtoolkit.org), a project aiming to reinvent the IDE.

Session #73 @ COTTON CREEK I : Fun for all ages: Modding & Hacking Minecraft with ScriptCraft by Pratik Patel
Want to get your kids interested in programming? Maybe you're a kid at heart too? Come to this session and learn how to use ScriptCraft for Minecraft modding!

Session #74 @ COTTON CREEK II : On Subliminal text editing by Raju Gandhi
We as programmers, spend a lot of time writing and manipulating text. Furthermore, as developers, not only do we appreciate the simplicity and power of plain text, we appreciate tools that manage, and/or manipulate plain text such as Git or Asciidoc. It is therefore prudent that as developers we find, and master a text editor that can let us do what we need to do, while growing to accommodate all of our text editing needs. In this session we will take a look at Sublime Text - a powerful, fast, and flexible text editor that has adoring fans the world over.

Session #75 @ WESTMINSTER BALLROOM I-II : Software Development AntiPatterns by Mark Richards
The ancient Chinese warrior Sun Tzu taught his men to “know your enemy” before going into battle. For developers, the equivalent is knowing and understanding software development anti-patterns – things that we repeatedly do that produce negative results. Anti-patterns are used by developers, architects and managers every day, and are one of the main factors preventing progress and success. In this humorous and fast-paced session we will take a deep-dive look at some of the more common and significant software development anti-patterns. Through coding and design examples you will see how these anti-patterns emerge, how to recognize when an anti-pattern is being used, and most importantly, learn how to avoid them through effective software development techniques and practices. Although most of the coding examples are in Java, this is largely a technology-agnostic session.

Session #76 @ WESTMINSTER III-V : Taking Command of the Command Line by Venkat Subramaniam
Modern IDEs are great, they let us get our work done, focus on solving problems, provide code prompts, and more. On the flip-side, they hide a lot of details and often do not provide everything to help get our work done. Learning to effectively use the command line, can help us navigate around, write scripts to automate certain routine tasks, isolate and understand issues, and more.

Thursday, Jul. 21
8:00 - 9:00 AM : BREAKFAST - WESTMINSTER BALLROOM
9:00 - 10:30 AM - Sessions

Session #77 @ LAKEHOUSE : Microservices in the Large: Tracer Bullet Architecture by Matt Stine
Much is said about the decentralized governance of and local autonomy given to “two pizza teams” build microservices. But how do you organize teams to effectively collaborate to build the eventual composite system?

Session #78 @ MEADOWBROOK : Introducing Gradle (Or: How I Learned to Stop Worrying and Love the Build) by Mark Vieira
Build tools have evolved slowly over the years and in general have failed to keep up with the ever increasing need to solve complex automation problems. As your project’s automation goals become more ambitious you will likely run into the limitations of existing build
systems. Gradle is positioning itself to become the de facto build system of the modern continuous delivery age. This presentation will provide a introduction to Gradle, its features, how it compares to other build systems available and what is coming in the future.

Session #79 @ STANDLEY II : Continuous Delivery for Architects Workshop by Neal Ford
Architecture doesn't exist in a vacuum, a painful lesson developers who build logically sound but operationally cumbersome architectures learned. Continuous Delivery is a process for automating the production readiness of your application every time a change occurs—code, infrastructure, or configuration. Some architectures and practices yield code that works better in this environment. This session takes a deep dive into the intersection of the architect role and the engineering practices in Continuous Delivery.

Session #80 @ STANDLEY I : Foundational Front-End Architecture: Getting the Most out of Frameworks, Libraries, Events, and the Browser Platform (Without Losing Your Mind) by Danny Brian
"There's a new JavaScript framework every week! There's a new JavaScript feature every week! There's a new HTML5 feature every week! We are losing our minds OMG@$HELPUS!" Settle down everybody. Shiny new frameworks distract you from the stability offered by the web platform: ES6 is the first major update to JavaScript since 2009, and HTML5 was 18 years in the making! More importantly, few of these innovations significantly change the "architecture" of web applications — we owe browser innovation and frameworks for that. But since the browser evolved in to a full-blown application runtime, we now need solid front-end architecture, and front-end architects. It's not just about JavaScript, it's about the entire platform. And you can't pick frameworks to simplify that platform until you understand its underpinnings.

Session #81 @ WAVERLY : Know Your Weaknesses: Vulnerability Reports Aggregation and Analysis with Content Security Policy by Ksenia Dmitrieva
One of the leading application security vulnerabilities, cross-site scripting (XSS), has been consistently found in many corporate applications, regardless of traditional defense techniques, such as input validation and output encoding. Knowing the number of such vulnerabilities in the organization’s applications is only half the issue. To understand the real risk, it is important to know how many of these vulnerable applications actually get attacked on the day to day basis, and which specific instances of vulnerabilities are being exploited. Such information will answer the questions like: is a certain framework being exploited most of the time, because it has not been patched? Or is it an issue in the custom code that has not gone through the security code review process? Content Security Policy (CSP) is a new HTML5 technology that allows organizations not only protect their applications from cross-site scripting, ensure that the content of the site, such as audio, video, images, fonts, is only loaded from approved locations, but also to get reports on every violation of the policy, such as cross-site-scripting attempts.

Session #82 @ LONG'S PEAK (2ND FLOOR) : Real-world Integration case studies and patterns part 1 by Rohit Bhardwaj
Building 3rd party integrations require deep understanding of the business problems. You would not want to reinvent the wheel to solve common issues. In this talk we will explore different case studies with patterns which helps solves real world issues. We will start with exploring SOA patterns like Service host, Active service, Transactional service, Workfloidize, Edge component. After that we will look at patterns related to performance, scalability and availability like Decoupled invocation, parallel pipelines, Gridable service, Service instance, Virtual Endpoint, and Service watchdog. Lastly we will dive into security and manageability patterns like Secured message, Secured Infrastructure, Service firewall, Identifier provider, and Service Monitor. Message exchange patterns include Request/Reply, Request/Reaction, Inversion of Communications and Saga. In Service consumer pattern we will explore Reservation, Composite front end and client/Server/Service. In Service integration patterns we will explore Service bus, Orchestration, Aggregated reporting. Lastly we will examine Service anti-patterns like Knot, Nanservice, Transactional integration.

Session #83 @ WINDSOR : Scaling Out MySQL - Architectures and Implementation by Michael Carducci
Whether your goals are higher concurrency, lower latency or high availability; there are proven techniques and strategies you can implement. Each requires careful consideration and comes with it's own challenges.

Session #84 @ COTTON CREEK I : Declarative AJAX - Minimizing Complexity In Modern Web Applications by Carson Gross
Declarative programming describes what a program should achieve in terms of a problem domain, rather than describing how to achieve it using a sequence of primitive operations. It has long been considered a powerful tool for minimizing complexity of software systems. In this talk we will discuss how to apply the declarative programming paradigm to modern AJAX-based web applications using intercooler.js.

Session #85 @ COTTON CREEK II : Devs Just Want to Have Fun(ctional)! by Raju Gandhi
Functional programming (FP) is fast becoming the tool that programmers reach for in this era of multi-core processors. Although the definition of "functional" varies quite a bit between implementations, there are a few facets that remain core and true to the paradigm. Facets such as functions as first-class, higher order functions, closures etc. In this session we will explore the meaning of these using JavaScript as our medium.
Session #87 @ WESTMINSTER III-V : Concurrency Concepts in Java by Douglas Hawkins

Unlike earlier languages, Java had a well-defined threading and memory model from the beginning. And over the years, Java gained new packages to help solve concurrency problems. Despite this, Java concurrency is sometimes subtle and fraught with peril.

10:30 - 11:00 AM : MORNING BREAK
11:00 - 12:30 PM - Sessions

Session #88 @ LAKEHOUSE : Distributed Tracing of Microservice Architectures by Matt Stine

Embracing microservices also means embracing distributed systems. Distributed systems carry with them multiple challenges. One set of challenges includes problems of visibility into the behavior of the composite system, understanding that behavior, and being able to isolate the cause(s) of problematic behavior. These challenges can be addressed by applying the techniques known collectively as Distributed Tracing.

Session #89 @ MEADOWBROOK : Testing your Gradle Builds by Mark Vieira

With software build and continuous delivery pipelines becoming more complex, there exists a need to verify the logic powering these processes like any other piece of code. We need tools and methodologies for testing our build logic much in the same way we test or production code. Assertions vary from ensuring the build produces the expected output, custom plugins and extensions modify the build in expected ways, and cross version testing with different versions of the build system. In this presentation we will discuss and demonstrate methods for testing Gradle builds, including standard unit testing as well as functional testing using Gradle TestKit.

Session #90 @ STANDLEY II : Continuous Delivery for Architects Workshop (continued) by Neal Ford

Architecture doesn't exist in a vacuum, a painful lesson developers who built logically sound but operationally cumbersome architectures learned. Continuous Delivery is a process for automating the production readiness of your application every time a change occurs—to code, infrastructure, or configuration. Some architectures and practices yield code that works better in this environment. This session takes a deep dive into the intersection of the architect role and the engineering practices in Continuous Delivery.

Session #91 @ STANDLEY I : Foundational Front-End Architecture: Getting the Most out of Frameworks, Libraries, Events, and the Browser Platform (Without Losing Your Mind) (continued) by Danny Brian

"There's a new JS framework every week! There's a new JavaScript feature every week! There's a new HTML5 feature every week! We are losing our minds OMG@#$HELPUS!" Settle down everybody. Shiny new frameworks distract you from the stability offered by the web platform: ES6 is the first major update to JavaScript since 2009, and HTML5 was 18 years in the making! More importantly, few of these innovations significantly change the "architecture" of web applications — we owe browser innovation and frameworks for that. But since the browser evolved in to a full-blown application runtime, we now need solid front-end architecture, and front-end architects. It's not just about JavaScript, it's about the entire browser platform. And you can't pick frameworks to simplify that platform until you understand its underpinnings.

Session #92 @ WAVERLY : The Art of Problem Solving by Mark Richards

As Tech Leaders, we are presented with problems and work to find a way to solve them, usually through technology. In my opinion this is what makes this industry so much fun. Let's face it - we all love challenges. Sometimes, however, the problems we have to solve are hard - really hard. So how do you go about solving really hard problems? That's what this session is about - Heuristics, the art of problem solving. In this session you will learn how to approach problems and also learn techniques for solving them effectively. So put on your thinking cap and get ready to solve some easy, fun, and hard problems.

Session #93 @ LONG'S PEAK (2ND FLOOR) : Real-world Integration case studies and patterns part 2 by Rohit Bhardwaj

Building 3rd party integrations require deep understanding of the business problems. You would not want to reinvent the wheel to solve common issues. In this talk we will explore different case studies with patterns which helps solves real world issues. We will start with exploring SOA patterns like Service host, Active service, Transactional service, Workfloedge, Edge component. After that we will look at patterns related to performance, scalability and availability like Decoupled invocation, parallel pipelines, Gridable service, Service instance, Virtual Endpoint, and Service watchdog. Lastly we will dive into security and manageability patterns like Secured message, Secured Infrastructure, Service firewall, Identify provider, and Service Monitor. Message exchange patterns include Request/Reply, Request/Reaction, Inversion of Communications and Saga. In Service consumer pattern we will explore Reservation, Composite front end and client/Server/Service. In Service integration patterns we will explore Service bus, Orchestration, Aggregated reporting. Lastly we will examine Service anti-patterns like Knot, Nanoservice, Transactional integration.
Session #94 @ WINDSOR : Introduction to Hadoop Workshop by Christopher Judd
As an industry we are collecting more and more data. At some point we have to be able to make sense of the data. Unfortunately many of the tools we have historically used can not scale up to the terabytes and petabytes we have captured. Hadoop is one of those relatively new technologies that is taking the industry by storm since it has proven to scale by taking advantage of the MapReduce pattern and distributed computing.

Session #95 @ COTTON CREEK I : Going Mobile: Are your apps putting you at risk? by Eric Johnson
With over 3 million apps now deployed in the Apple and Google Play app stores, the importance of mobile application security assessments is at an all time high. With business critical mobile apps handling payment card, healthcare, and financial information on end user devices, organizations are vulnerable to an entirely new class of mobile software vulnerabilities. As the bad guys shift their focus towards attacking mobile applications, defenders are struggling to keep up.

Session #96 @ COTTON CREEK II : Being proactively Reactive with Rxjs by Raju Gandhi
In today's world, our applications need to be both responsive, fast and scalable. Our applications need to respond to user interactions such as mouse movements, clicks and inputs as well as asynchronous inputs like XHR calls, server sent events, setInterval, even web socket events! Unfortunately as things stand today, there is no "consistent" way to deal with the myriad of different "changes" that could happen in an application. But what if there is? This is what Reactive Extensions (specifically RxJs in this session) allow us to do. It offers us an abstraction that allows us to treat everything from DOM events (infinite streams) to our domain (‘map’s, ‘set’s and ‘array’s) as "streams". This **consistent** interface now permits us to create and manipulate any source identically. Furthermore, it allows us to react to "different" sources as if they are one! Reactive Extensions are fast becoming the de-facto approach of managing asynchronicity in JS land. From Netflix's UI to Angular 2 `$http` to ES7 - reactive programming is everywhere!

Session #97 @ WESTMINSTER BALLROOM I-I : Java 8 Programming Idioms by Venkat Subramaniam
A number of developers and organizations are beginning to make use of Java 8. With anything that's new, we often learn it the hard way.

Session #98 @ WESTMINSTER III-V : How (Not) To Measure and Profile Java Performance by Douglas Hawkins
Today, we all benefit from the sophistication of modern compilers and hardware, but that extra complexity can also make it difficult to reason about performance.

12:30 - 1:30 PM : LUNCH - WESTMINSTER BALLROOM
1:30 - 3:00 PM - Sessions

Session #99 @ LAKEHOUSE : Enterprise Architecture Fundamentals by Mark Richards
Too many companies embark on enterprise architecture efforts only to have them fail. One of the biggest reasons for these failed attempts at enterprise architecture is that no one really knows what it is. Ask 10 people what enterprise architecture is, and you are guaranteed to get 10 different answers. Enterprise architecture is more than drawing lots of enterprise-level future-state architecture diagrams – it is about being able to bridge the gap between business needs and IT capabilities. In this session you will learn about the context and goals of enterprise architecture, what skills are necessary to become an enterprise architect, and how to model the enterprise. We’ll also take a look at transformation techniques for both data and systems across the enterprise.

Session #100 @ MEADOWBROOK : Java 9 - The Jigsaw Module System by Kirk Knoernschild
With Java 9, modularity will be built in to the Java platform...Finally! In this session, we explore the default Jigsaw module system and compare it to the alternative module system, OSGi, on the Java platform.

Session #101 @ STANDLEY II : Groovy for Java Developers by Kenneth Kousen
Learn Groovy from a Java developer's perspective. Use Groovy features like native collections, operator overloading, and the Groovy JDK. Additional topics will include closures, builders, AST transformations, and basic metaprogramming.

Session #102 @ STANDLEY I : Hybrid Mobile Apps with HTML5: Easier Than You Think by Danny Brian
You don't need massive frameworks to build mobile apps responsive to touch events, that contain fluid animations, or that are easily deployed to app stores. All you really need is a solid grasp of the JavaScript, CSS3, and HTML5 features and APIs that enable a compelling experience.

Session #103 @ WAVERLY : Agile in the Large by Nathaniel Schutta
Almost every example of an agile project involves a single team and while many successful projects are delivered that way, most enterprise software requires the interaction of several teams. But how do we scale agile beyond a single team? What practices translate and which ones don't? In this talk we'll discuss some of the issues you'll encounter as you move agile beyond a single group and how you can keep multiple stakeholders happy. While it isn't as simple as having a "scrum of scrums" it isn't as hard as replacing every line of COBOL.
Session #104 @ LONG’S PEAK (2ND FLOOR) : Enterprise Security, Privacy and Data compliance by Rohit Bhardwaj

Data integrity, security, recovery, privacy and regulatory compliance are essential attributes for enterprise implementation. Enterprise customers ask for transparency in how the vendors will provide security programs. Many questions need to be asked for any cloud implementation to policy makers, architects, coders, and testers. In this presentation, we will explore data security and storage, privacy, and data compliance issues. We will explore the security management in the cloud. The presentation is useful for anyone starting from Executives to developers who are going to implement the Enterprise Applications in both private and public cloud.

Session #105 @ WINDSOR : Introduction to Hadoop Workshop (continued) by Christopher Judd

As an industry we are collecting more and more data. At some point we have to be able to make sense of the data. Unfortunately many of the tools we have historically used can not scale up to the terabytes and petabytes we have captured. Hadoop is one of those relatively new technologies that is taking the industry by storm since it has proven to scale by taking advantage of the MapReduce pattern and distributed computing.

Session #106 @ COTTON CREEK I : Building a Continuous Delivery Pipeline With Jenkins (and Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker) by Brent Laster

Create your own model Continuous Deliver pipeline in a VM using Jenkins, Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker. Learn about each of these technologies in brief and see how to integrate them into Jenkins through plugins or scripting. See how to generate and access reports for running testcases, pass/fail for code metrics, coverage info, etc. Learn how to deploy a webapp with a database backend in multiple Docker containers for functional or UAT tests. Learn Jenkins techniques to pass information, environments, and artifacts between jobs in the pipeline. Important setup required before the workshop: You will need a laptop for this workshop with the applications as discussed below. In this workshop, we use a preconfigured VM which requires Virtualbox to be running on your system. Please see https://github.com/brentlaster/conf/blob/master/rwx2016/JDP-Setup.pdf and follow the directions there. (Note: You do not need to do the part about changing the timezone on the VM since RWX 2016 will be in the EST timezone.) As noted in the PDF, the VM can be downloaded from: https://s3-us-west-2.amazonaws.com/bclconf/CDPipeline/RWX_2016.ova Please be aware that this VM is ~6G in size and will require significant time to download. Free space of 20G (prior to the download to allow for the download, running the VM, etc.) is recommended on your system for best performance.

Session #107 @ COTTON CREEK II : Migrating to ES2015 workshop, part I by Pratik Patel

In this fun 2 part workshop, we'll do a series of exercises to convert "old school" JavaScript code to ES2015, or ECMAScript 2015 code. ES2015 just got finalized, but you don't have to wait to use it. Using transpilation as part of your build process, you can quickly start using it TODAY. See the details below to get a flavour for what we'll be hacking in this fast-paced workshop.

Session #108 @ WESTMINSTER BALLROOM I-II : A Few Hidden Treasures in Java 8 by Venkat Subramaniam

Sure, Java 8 has lambdas and streams. However, the JDK has gone through significant makeover to make good use of lambdas and streams. Furthermore, some of the new functional interfaces have far more than abstract methods.

Session #109 @ WESTMINSTER III-V : Java Optimizations That Matter (and Some That Don't) by Douglas Hawkins

Early releases of Java performed poorly, but those issues largely disappeared long ago with the introduction of HotSpot. However, much of the performance advice for Java persists through hearsay from those early days.

3:00 - 3:15 PM : BREAK

3:15 - 4:45 PM - Sessions

Session #110 @ LAKEHOUSE : Cloud Architectural design patterns blueprints by Rohit Bhardwaj

In this talk, we will explore different cloud computing architecture design patterns blueprints and how you can take advantage of them. We will study cloud patterns for Private and Hybrid cloud deployments, Cloud Services, Common cloud management platforms, Security, Cloud governance, resiliency, Performance, and consumability.

Session #111 @ MEADOWBROOK : Reactive Fault Tolerant Programing with Hystrix and RxJava by Matt Stine

As we build distributed systems composed of microservices, we introduce new potential performance problems and failure points. As the number of nodes in our system increases, these problems rapidly amplify. In order to keep our composite systems responsive, we can apply the techniques of reactive programming. In order to keep our composite systems healthy, we can apply fault tolerance patterns like circuit breakers and bulkheads.

Session #112 @ STANDLEY II : Groovy for Java Developers (continued) by Kenneth Kousen

Learn Groovy from a Java developer's perspective. Use Groovy features like native collections, operator overloading, and the Groovy JDK. Additional topics will include closures, builders, AST transformations, and basic metaprogramming.
Session #113 @ STANDLEY I : Hybrid Mobile Apps with HTML5: Easier Than You Think (continued) by Danny Brian
You don’t need massive frameworks to build mobile apps responsive to touch events, that contain fluid animations, or that are easily deployed to app stores. All you really need is a solid grasp of the JavaScript, CSS3, and HTML5 features and APIs that enable a compelling experience.

Session #114 @ WAVERLY : Architecting with Garbage Collection in Mind by Douglas Hawkins
HotSpot provides a variety of garbage collectors with a variety of strengths and weaknesses. To get the most out of our applications, we need to pick the right garbage collector and design to take advantage of its strengths and avoid its weaknesses.

Session #115 @ LONG’S PEAK (2ND FLOOR) : Communication for Architects by Nathaniel Schutta
At the end of the day, an architect’s primary job is to communicate. Not only do we need to make sure our teams understand the design of the system well enough to implement it, we must be able to explain our decisions to an audience that isn’t impressed with how many TLAs you can rattle off in one sentence. Successful architects need to seamlessly transition from in-depth technical conversations to budget meetings to discussions with end users adjusting the message to fit the audience.

Session #116 @ WINDSORS : Productivity for the hopelessly disorganized by Michael Carducci
It happens to us all: there are simply days where it seems impossible to get anything done. This session focuses on techniques and tips to get into the zone, stay in the zone and to protect your productivity, even in disruptive environments.

Session #117 @ COTTON CREEK I : Building a Continuous Delivery Pipeline With Jenkins (and Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker) (continued) by Brent Laster
Create your own model Continuous Deliver pipeline in a VM using Jenkins, Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker. Learn about each of these technologies in brief and see how to integrate them into Jenkins through plugins or scripting. See how to generate and access reports for running testcases, pass/fail for code metrics, coverage info, etc. Learn how to deploy a webapp with a database backend in multiple Docker containers for functional or UAT tests. Learn Jenkins techniques to pass information, environments, and artifacts between jobs in the pipeline. Important setup required before the workshop: You will need a laptop for this workshop with the applications as discussed below. In this workshop, we use a preconfigured VM which requires Virtualbox to be running on your system. Please see https://github.com/brentlaster/conf/blob/master/rwx2016/JDP-Setup.pdf and follow the directions there. (Note: You do not need to do the part about changing the timezone on the VM since RWX 2016 will be in the EST timezone.) As noted in the PDF, the VM can be downloaded from: https://s3-us-west-2.amazonaws.com/bclconf/CDPipeline/RWX_2016.ova Please be aware that this VM is ~6G in size and will require significant time to download. Free space of 20G (prior to the download to allow for the download, running the VM, etc.) is recommended on your system for best performance.

Session #118 @ COTTON CREEK II : Migrating to ES2015 workshop, part ll by Pratik Patel
In this fun 2 part workshop, we’ll do a series of exercises to convert “old school” JavaScript code to ES2015, or ECMAScript 2015 code. ES2015 just got finalized, but you don’t have to wait to use it. Using transpilation as part of your build process, you can quickly start using it TODAY. See the details below to get a flavour for what we’ll be hacking in this fast-paced workshop.

Session #119 @ WESTMINSTER BALLROOM I-II : Parallel Programming with Java 8 Streams by Venkat Subramaniam
“If streams can be parallel, why not make them parallel all the time?” is a common question from developers getting introduced to Java 8 streams. In this talk we’ll take on three separate topics. 1. When to consider parallelization and when not to. 2. How to parallelize, how to decide on number of threads, and how to control the thread’s pool. 3. Learn about some common mistakes people make when using parallel streams.

Session #120 @ WESTMINSTER III-V : Hypothesis/Data Driven Development using Feature Toggles by Neal Ford
Hypothesis and data driven development ties together current thinking about requirements, Continuous Delivery, DevOps, modern architecture, and engineering techniques to help rethink building software.

4:45 - 5:00 PM : BREAK
5:00 - 6:30 PM - Sessions

Session #121 @ LAKEHOUSE : 15 Best Practices for designing Enterprise RESTful APIs in cloud by Rohit Bhardwaj
API Gateway is a way to connect real world cloud-ready applications. New applications need to design the data model and create public APIs to be consumed by mobile apps, third party apps, and different devices. We will explore best practices, which you must adopt to be cloud ready. Firstly, we will examine how contract first API development is helping enable more extensible and reliable APIs. Next, we will look at We will ask tough questions during this design session. How to provide security? What are best practices to authenticate? When should we version APIs? Should we use HATEOS for developing APIs? How to support internationalization? How to publish and maintain APIs? We will take deep dive into following areas: • RESTful APIs design patterns; Principles for designing APIs. Hypermedia, Entity tags caching, filtering, Partial items, HAL • API versioning techniques: URI path, URI parameter, Content Negotiation, Request
Session #122 @ MEADOWBROOK : Monitoring and Metrics and Logging: Oh My! by Matt Stine
Visibility is one of the primary characteristics of applications that aren’t just coded well, but run well in production. We need visibility to understand: * how our system performs * how our system misbehaves * how our system fails * how our users interact with our system * what’s providing value to users and what’s not * and more! In this talk we’ll look at the three disciplines of monitoring, metrics, and logging, and see how properly used, they can dramatically increase our system’s inherent visibility.

Session #123 @ STANDELY II : Grails: The Next Generation by Kenneth Kousen
Grails is no longer the web framework you remember. Based on Spring Boot and complete with profiles and JSON views, Grails is now an excellent way to build micro-services, access NoSQL databases, provide a powerful REST API, and more.

Session #124 @ STANDELY I : Coding the Future Web Today: Web Components! by Danny Brian
HTML5 hasn’t fundamentally changed the way we build web applications — JavaScript frameworks did that. Not so with Web Components! Web Components are the most important update to HTML and the Document Object Model in recent years. They have a major impact on client-side architecture, on framework selection, and on distribution and reuse of code.

Session #125 @ WAVERLY : How HotSpot Sees Your Code by Douglas Hawkins
Just as a database creates an execution plan to run your SQL queries, HotSpot analyzes your Java code to determine how to best to run your code. And just as with a database where understanding indexes is important to achieving performance, there are a few core concepts that important to understanding Java performance.

Session #126 @ LONG'S PEAK (2ND FLOOR) : Reviewing Architectures by Nathaniel Schutta
Good architects are, almost by definition, good story tellers. And while good communication skills are vital to success as an architect, so too is an ability to constructively critique an architecture. In this talk, we’ll explore why reviews are important and what it takes to perform them well. Additionally, we’ll talk about the importance of planning and preparation in conducting a successful review.

Session #127 @ WINDSOR : Soft Skills for the Software Architect: Building Your Professional Network by Michael Carducci
You’ve heard the old adage "It's not what you know it's who you know." The focus of this session is divided between ways to better connect with everyone you meet as well as ways to grow your network, help and influence people and ultimately build long-term relationships and build your reputation.

Session #128 @ COTTON CREEK I : Building a Continuous Delivery Pipeline With Jenkins (and Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker) (continued) by Brent Laster
Create your own model Continuous Delivery pipeline in a VM using Jenkins, Gradle, Git, Gerrit, Artifactory, Sonar, Jacoco, and Docker. Learn about each of these technologies in brief and see how to integrate them into Jenkins through plugins or scripting. See how to generate and access reports for running testcases, pass/fail for code metrics, coverage info, etc. Learn how to deploy a webapp with a database backend in multiple Docker containers for functional or UAT tests. Learn Jenkins techniques to pass information, environments, and artifacts between jobs in the pipeline. Important setup required before the workshop: You will need a laptop for this workshop with the applications as discussed below. In this workshop, we use a preconfigured VM which requires Virtualbox to be running on your system. Please see https://github.com/brentlaster/conf/blob/master/JDP-Setup.pdf and follow the directions there. (Note: You do not need to do the part about changing the timezone on the VM since RWX 2016 will be in the EST timezone.) As noted in the PDF, the VM can be downloaded from: https://s3-us-west-2.amazonaws.com/bclconf/CDPipeline/RWX_2016.ova Please be aware that this VM is ~6G in size and will require significant time to download. Free space of 20G (prior to the download to allow for the download, running the VM, etc.) is recommended on your system for best performance.

Session #129 @ COTTON CREEK II : High Performance JavaScript Web Apps Architecture by Pratik Patel
In this session, we'll dig deep into the performance aspects of JavaScript and the Web Browser. Single page web applications are becoming popular very quickly, and understanding the low-level and high-level aspects of the browser platform and JavaScript runtimes embedding in them are important.

Session #130 @ WESTMINSTER BALLROOM I-II : Let’s Get Lazy: Explore the Real Power of Streams by Venkat Subramaniam
Efficiency is achieved not just by running things faster, but by avoiding things that shouldn’t be done in the first place. Lazy evaluations are a core feature of many functional programming languages. Your code can benefit from lazy evaluations with lambda expressions and, more so, with the power of Streams.

Session #131 @ WESTMINSTER III-V : Comparing Service-based Architectures by Neal Ford
This session compares Service-oriented, Service-based, and Micro-service architectures, describing the problem each is designed to solve, differences and similarities, variants and hybrids, and engineering practices.
Friday, Jul. 22

8:00 - 9:00 AM : BREAKFAST - WESTMINSTER BALLROOM

9:00 - 10:30 AM - Sessions

Session #132 @ LAKEHOUSE : Docker for Devs Workshop by Christopher Judd
Docker and containers are getting a lot of attention these days but what do they mean for devs? How do they fit into DevOps and continuous delivery movements? Where do these tools fit into cloud computing? During this hands-on session we will learn how to install and configure Docker, build images and run containers in a local development environment. But we will also explore using them in a continuous deployment environment by deploying them to on premise as well as cloud services such as AWS.

Session #133 @ MEADOWBROOK : Clojure Workshop by Howard Lewis Ship and Neal Ford
In an increasingly crowded field of languages, Clojure stands alone. It is a dynamic, functional, high performance dialect of Lisp that runs on both the JVM and CLR. The creator cast aside assumptions from both the Lisp and Java communities to create a remarkable language implementation.

Session #134 @ STANDLEY II : Distributed Systems in One Lesson by Tim Berglund
Normally simple tasks like running a program or storing and retrieving data become much more complicated when we start to do them on collections of computers, rather than single machines. Distributed systems has become a key architectural concern, and affects everything a program would normally do—giving us enormous power, but at the cost of increased complexity as well.

Session #135 @ STANDLEY I : Full Stack JavaScript with HTML5, Node.js and MongoDB by Danny Brian
You don't need Node.js or MongoDB to build "full-stack" solutions, but they sure help! This stack is popular for its scalability, its promise of developer productivity, and the capability to develop all components with a single programming language. Not all use cases are a great fit for JavaScript on the server. But love it or hate it, there are valuable lessons and use cases here for all developers.

Session #136 @ WAVERLY : Finding Security Defects through Threat Modeling by Ksenia Dmitrieva
When talking about finding security defects we first think of security testing and static analysis of the code. Although, penetration testing and secure code review can uncover many types of security issues in an application, there are gaps that simply cannot be found with these traditional analysis techniques. The interactions between the different systems are beyond the code review level and the complex interconnections are often not reachable from the penetration tester’s point of view. Discovering weaknesses in the design of a system is the specific goal of threat modeling. Organizations benefit from this software design analysis because they can perform it without code to discover potential vulnerabilities early in the development cycle.

Session #137 @ LONG'S PEAK (2ND FLOOR) : Taming the Blockchain with Ethereum by Brian Sletten
Bitcoin has roundly entered the public consciousness, but it is limited in its use beyond the specific constraints of the cryptocurrency. Ethereum is a new platform that has enabled developers to innovate in creating their own cryptocurrencies, platforms, smart contracts and more.

Session #138 @ WINDSOR : Modeling for Web Architects by Nathaniel Schutta
In some organizations, architects are dismissed as people that draw box and arrow diagrams - the dreaded whiteboard architect. While we don't want to foster that stereotype, it is important for an architect to be able to construct basic architectural diagrams. An architect must also be able to separate the wheat from the chaff eliminating those models that don't help tell the story while fully leveraging those that do.

Session #139 @ COTTON CREEK I : The Walking TDD by Daniel Hinojosa
Didn't you hear the news? TDD is dead. Yet many developers rely on it for quality code. Come join the zombie apocalypse and learn and understand TDD, what sets it apart from unit testing after the fact, what to do when you need to update code, effective mocking, automatically generating test data and lots of it, leaving code alone and respecting your work, and more

Session #140 @ COTTON CREEK II : Top 5 Reasons Why Improvement Efforts Fail by Arty Starr
This is my story of lessons learned on why improvement efforts fail... I had a great team. We were disciplined about best practices and spent tons of time on improvements. Then I watched my team slam into a brick wall. We brought down production three times in a row, then couldn’t ship again for a year. Despite our best efforts with CI, unit testing, design reviews, and code reviews, we lost our ability to understand the system. We thought our problems were caused by technical debt building up in the code base, but we were wrong. We
failed to improve, because we didn’t solve the right problems. Eventually, we turned our project around, but with a lot of tough lessons along the way.

Session #141 @ WESTMINSTER BALLROOM I-II : Twelve Ways to Make Code Suck Less by Venkat Subramaniam
We all have seen our share of bad code and some really good code as well. What are some of the common anti patterns that seem to be recurring over and over in code that sucks? By learning about these code smells and avoiding them, we can greatly help make our code better.

Session #142 @ WESTMINSTER III-V : Modular Architecture - Refactoring the Monolith by Kirk Knoernschild
Microservices are all the rage. But this isn’t a session on microservices. It’s a session on modularity. At the end of the day, microservices are just one way to the increase modularity of our software system. But there are others.

10:30 - 10:45 AM : MORNING BREAK
10:45 - 12:15 PM - Sessions
Session #143 @ LAKEHOUSE : Docker for Devs Workshop (continued) by Christopher Judd
Docker and containers are getting a lot of attention these days but what do they mean for devs? How do they fit into DevOps and continuous delivery movements? Where do these tools fit into cloud computing? During this hands-on session we will learn how to install and configure Docker, build images and run containers in a local development environment. But we will also explore using them in a continuous deployment environment by deploying them to on premise as well as cloud services such as AWS.
Session #144 @ MEADOWBROOK : Clojure Workshop (continued) by Howard Lewis Ship and Neal Ford
In an increasingly crowded field of languages, Clojure stands alone. It is a dynamic, functional, high performance dialect of Lisp that runs on both the JVM and CLR. The creator cast aside assumptions from both the Lisp and Java communities to create a remarkable language implementation.
Session #145 @ STANDLEY II : 3/4 Day Learn to use Gradle (and understand it) Workshop by Brent Laster
Join me for this 3/4 day Gradle introduction workshop. We’ll cover all of the basic things you need to know about using Gradle. Not only will you understand what Gradle is and why and how it works the way it does, but you’ll get extensive hands-on practice so you’ll be ready to use Gradle successfully in your own projects immediately after the workshop. Participants should bring either a Windows or Mac laptop to work through the workshop exercises.
Session #146 @ STANDLEY I : Full Stack JavaScript with HTML5, Node.js and MongoDB (continued) by Danny Brian
You don’t need Node.js or MongoDB to build “full-stack” solutions, but they sure help! This stack is popular for its scalability, its promise of developer productivity, and the capability to develop all components with a single programming language. Not all use cases are a great fit for JavaScript on the server. But love it or hate it, there are valuable lessons and use cases here for all developers.
Session #147 @ WAVERLY : Building Java Applications with Cassandra by Tim Berglund
So you’re a JVM developer, you understand Cassandra’s architecture, and you’re on your way to knowing its data model well enough to build descriptive data models that perform well. What you need now is to know the Java Driver.
Session #148 @ LONG’S PEAK (2ND FLOOR) : Architecture and Innovation by Brian Sletten
Architecture does more than describe the system as it is. It also establishes incentives, cost structures, organizational patterns and a marketplace for ideas upon which various players will innovate. One of the reasons the Web has been so successful is because it does this in a way that encourages a wide participation from varied players due to the nature of the architecture upon which it is built: The Internet.
Session #149 @ WINDSOR : Modeling for Web Architects (continued) by Nathaniel Schutta
In some organizations, architects are dismissed as people that draw box and arrow diagrams - the dreaded whiteboard architect. While we don’t want to foster that stereotype, it is important for an architect to be able to construct basic architectural diagrams. An architect must also be able to separate the wheat from the chaff eliminating those models that don’t help tell the story while fully leveraging those that do.
Session #150 @ COTTON CREEK I : 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 #151 @ COTTON CREEK II : Stop Getting Crushed By Business Pressure by Arty Starr**
This is my story of lessons learned on how to stop the crushing effects of business pressure... I was team lead with full control of our green-field project. After a year, we had continuous delivery, a beautiful clean code base, and worked directly with our customers to design the features. Then our company split in two, we were moved under different management, and I watched my project get crushed. As a consultant, I saw the same pattern of relentless business pressure everywhere, driving one project after another into the ground. I made it my mission to help the development teams solve this problem. This is my story of lessons learned on how to transform an organization from the bottom up. I'll show you how to lead the way.

**Session #152 @ WESTMINSTER BALLROOM I-II : What's Brewing in Java 9 by Venkat Subramaniam**
What's in Java 9 and, more important, how does that impact us?

**Session #153 @ WESTMINSTER III-V : Modularity, Microservices, and Modern Architectural Paradigms by Kirk Knoernschild**
New architectural paradigms are emerging that challenge traditional assumptions about the way that scalable and adaptable software is built. At the heart of these paradigms is a modular approach that breaks apart the monolithic application. But breaking apart the monolith has implications beyond software architecture and never before has architecture, infrastructure, and methodology been linked in a way that demands a new approach to software development.

12:15 - 1:30 PM : OUTDOOR BREAK & LUNCH - WESTMINSTER BALLROOM & SOUTH COURTYARD
1:30 - 3:00 PM - Sessions

**Session #154 @ LAKEHOUSE : Frege for Java Programmers by Venkat Subramaniam**
Frege is an implementation of Haskell on the JVM. It brings along the strengths and power of one of the most powerful statically typed and functional programming languages.

**Session #155 @ MEADOWBROOK : Web Security Workshop by Brian Sletten**
If you're not terrified, you're not paying attention. Publishing information on the Web does not require us to just give it away. We have a series of tools and techniques for managing identity, authentication, authorization and encryption so we only share content with those we trust. Before we tackle Web Security, however, we need to figure out what we mean by Security. We will pull from the worlds of Security Engineering and Software Security to lay the foundation for technical approaches to protecting our web resources. We will also discuss the assault on encryption, web security features and emerging technologies that will hopefully help strengthen our ability to protect what we hold dear.

**Session #156 @ STANDLEY II : 3/4 Day Learn to use Gradle (and understand it) Workshop (continued) by Brent Laster**
Join me for this 3/4 day Gradle introduction workshop. We'll cover all of the basic things you need to know about using Gradle. Not only will you understand what Gradle is and why and how it works the way it does, but you'll get extensive hands-on practice so you'll be ready to use Gradle successfully in your own projects immediately after the workshop. Participants should bring either a Windows or Mac laptop to work through the workshop exercises.

**Session #157 @ STANDLEY I : Pattern Matching Makes You Powerful! (In All Languages!) by Danny Brian**
Regular Expressions are an undervalued, underutilized tool in the developer toolbox. Few programming technologies have stood a comparable test of time for their capacity to improve developer productivity, to shortcut complex tasks, to reduce dependency on various libraries, and to encourage code reuse. They also help to teach patterns and improve pattern recognition, not only for code, but for programmers themselves. Competency with regexes will make you a better programmer, regardless of your choice of language or platforms. And it will impress your peers, too!

**Session #158 @ WAVERLY : Automating Application Security Testing: Be Offensive! by Aaron Cure and Steve Kosten**
While developers and testers use Selenium and other suites to test web application functionality, security often falls to the wayside because it's either too time consuming or they just don't know HOW to test for these issues. In this talk we'll discuss some basic OWASP TOP 10/CWE 25 vulnerabilities and how to discover them.

**Session #159 @ LONG'S PEAK (2ND FLOOR) : Cloud Infrastructure at Scale by Dan Woods**
As teams increasingly move to the cloud, they are met with many challenges when managing a distributed footprint.
Session #160 @ WINDSOR : Scala for Java Developers (1/2) (Laptops Optional) by Daniel Hinojosa
Scala for Java Developers is a full live code and fast paced presentation and workshop (laptops optional), and this is all about the Scala language.

Session #161 @ COTTON CREEK I : Spark Workshop by Tim Berglund
Apache Cassandra is a leading open-source distributed database capable of amazing feats of scale, but its data model requires a bit of planning for it to perform well. Of course, the nature of ad-hoc data exploration and analysis requires that we be able to ask questions we hadn’t planned on asking—and get an answer fast. Enter Apache Spark.

Session #162 @ COTTON CREEK II : Flow Theory & AI Architecture by Arty Starr
I.flow() AI is an emotional intelligence AI that learns to respond in real-time to the pain of humans, for example, developers that are having a hard time. The I.flow() AI Platform is still in the early stages of mapping theory to concrete implementation, so in this talk we’ll breakdown architecture strategy, pain metrics, pair programming buddy, supply chain flows, and the underpinning of Flow theory.

Session #163 @ WESTMINSTER BALLROOM I-II : Bulletproof JavaScript by Nathaniel Schutta
Take a look at your codebase. Go ahead, this abstract will wait. Notice anything? Perhaps a few more lines of JavaScript than years past? JavaScript is no longer an outlier, a language for the interns, something we can just mash together. Today, JavaScript is a first class citizen. As such, we need to treat it will all the care and feeding we extend our server side languages. This talk will introduce you to a set of tools that will help you write bulletproof JavaScript.

Session #164 @ WESTMINSTER III-V : Modularity, Microservices, and Modern Architectural Paradigms (continued) by Kirk Knoernschild
New architectural paradigms are emerging that challenge traditional assumptions about the way that scalable and adaptable software is built. At the heart of these paradigms is a modular approach that breaks apart the monolithic application. But breaking apart the monolith has implications beyond software architecture and never before has architecture, infrastructure, and methodology been linked in a way that demands a new approach to software development.

3:00 - 3:15 PM : AFTERNOON BREAK
3:15 - 4:45 PM - Sessions

Session #165 @ LAKEHOUSE : Interactive Development and Fast Feedbacks with Java 9 REPL by Venkat Subramaniam
Programming is an act of continuous discoveries. Auto-Completion in IDEs are great, but they're more of a speculation than experimentation. Read-Evaluate-Print-Loop or REPL gives an instant feedback and the ability to quickly try out your ideas. Fast feedbacks are the rage today in development.

Session #166 @ MEADOWBROOK : Web Security Workshop (continued) by Brian Sletten
If you're not terrified, you're not paying attention. Publishing information on the Web does not require us to just give it away. We have a series of tools and techniques for managing identity, authentication, authorization and encryption so we only share content with those we trust. Before we tackle Web Security, however, we need to figure out what we mean by Security. We will pull from the worlds of Security Engineering and Software Security to lay the foundation for technical approaches to protecting our web resources. We will also discuss the assault on encryption, web security features and emerging technologies that will hopefully help strengthen our ability to protect what we hold dear.

Session #167 @ STANDLEY II : 3/4 Day Learn to use Gradle (and understand it) Workshop (continued) by Brent Laster
Join me for this 3/4 day Gradle introduction workshop. We'll cover all of the basic things you need to know about using Gradle. Not only will you understand what Gradle is and why and how it works the way it does, but you'll get extensive hands-on practice so you'll be ready to use Gradle successfully in your own projects immediately after the workshop. Participants should bring either a Windows or Mac laptop to work through the workshop exercises.

Session #168 @ STANDLEY I : Pattern Matching Makes You Powerful! (In All Languages!) (continued) by Danny Brian
Regular Expressions are an undervalued, underutilized tool in the developer toolbox. Few programming technologies have stood a comparable test of time for their capacity to improve developer productivity, to shortcut complex tasks, to reduce dependency on various libraries, and to encourage code reuse. They also help to teach patterns and improve pattern recognition, not only for code, but for programmers themselves. Competency with regexes will make you a better programmer, regardless of your choice of language or platforms. And it will impress your peers, too!
ÜberConf

-Session Schedule-
(event schedule as of July 20, 2016)

**Session #169 @ WAVERLY : JavaScript Katas by Nathaniel Schutta**
If you have ever studied a martial art, chances are you are familiar with katas: the practice of individual training exercises. Repeatedly. It may seem pointless to practice the same move again and again, the only way to improve is repetition. We can apply the same concept to learning programming languages.

**Session #170 @ LONG’S PEAK (2ND FLOOR) : Groovy in the Cloud by Dan Woods**
The cloud is a rapidly changing landscape, and the options available for running code in the cloud continue to grow with that. Groovy is a versatile language for the JVM, and opens the door on building robust and comprehensive solutions for any cloud deployment. As such, the different cloud runtimes that are available should be examined to ensure that best practices are being followed when developing Groovy projects for the cloud.

**Session #171 @ WINDSOR : Scala for Java Developers (2/2) (Laptops Optional) by Daniel Hinojosa**
Scala for Java Developers is a full live code and fast-paced presentation and workshop (laptops optional), and this is all about the Scala language. This is Part 2, continuing where we left off from Part 1.

**Session #172 @ COTTON CREEK I : Spark Workshop (continued) by Tim Berglund**
Apache Cassandra is a leading open-source distributed database capable of amazing feats of scale, but its data model requires a bit of planning for it to perform well. Of course, the nature of ad-hoc data exploration and analysis requires that we be able to ask questions we hadn’t planned on asking—and get an answer fast. Enter Apache Spark.

**Session #173 @ COTTON CREEK II : Learn Your Way to AWESOME. by Arty Starr**
How do we turn our company into an **AWESOME** company? Our projects get crushed over and over again by bad decisions caused by relentless business pressure, a lack of visibility, and huge communication problems. Fixing our software problems isn’t an engineering problem, it’s an “organizational” problem. It means the people of the business world and the engineering world need to learn how to communicate, learn together, and work together to optimize the whole. So how do we get from Point A to Point AWESOME? ***We learn.***

**Session #174 @ WESTMINSTER BALLROOM I-II : Stop writing code and start solving problems by Michael Carducci**
Being a professional software engineer, it’s easy to fall into the belief that one’s role in a company is to write code. Another perspective might be that one’s role is to solve problems for the business and that writing code is merely one of several tools available to help solve those problems.

**Session #175 @ WESTMINSTER III-V : Principles of Agile Architecture by Kirk Knoernschild**
Traditional approaches to software architecture are broken. Attempts to define the architectural vision for a system early in the development lifecycle do not work. In today’s volatile technology and business climate, big architecture up front is not sustainable. In this session, we will explore several principles that help us create more flexible and adaptable software systems. But first, we’ll expose the true essence of what’s meant when we say “architectural agility.”

4:45 - 5:00 PM : CONCLUSION OF UBERCONF 2016 - THANK YOU FOR ATTENDING!