

AWS re:Invent

The Startup's Guide
to **re:Invent**

DEC. 2 – 6, 2019

LAS VEGAS, NV

About re:Invent

re:Invent offers four days (give or take) to rub backpacks with tens of thousands of your fellow developers, builders, entrepreneurs, and the generally cloud-obsessed. Converted to joules, that's enough nerd heat to power Las Vegas for at least a month. It would take another several months just to take in all the technical sessions, hackathons, labs, pub crawls, and wing-eating contests on offer at re:Invent. And you have only a few days. Point is, use your time (and joules) wisely.

That is Where This Guide Comes In.

This year at re:Invent we've designed a set of technical sessions, mentorship opportunities, and straight-up fun for the startup entrepreneurs (and would-be startup entrepreneurs) attending re:Invent. Most of it happens at the Expo Hall at the Venetian, within a space called Startup Central. Think of it as a sort of startup VIP area. We do.

So, what do you get? re:Invent is a technical conference, and these are mostly technical sessions that describe how some of the smartest startups out there are building what they build. They'll dive deep into what works, and where they went wrong. Do you have to be a startup jockey to get something out of these sessions? No. You just need to want to operate at the speed and scale that the fastest growing startups do. And who doesn't want that?

Welcome to the Show.

When we asked Amazon CTO Dr. Werner Vogels his top three tips for startup entrepreneurs at re:Invent, his answer was, “One: Prepare. Two: Prepare. Three: Prepare.” You get the idea.

What follows are some of the key moments from the overall re:Invent schedule, and the startup-specific sessions.

The final curation is up to you, but this guide should help. We look forward to seeing you at re:Invent and at Startup Central, our Venetian-based hub for all things startup at re:Invent.

First Things First:

Sign Up Here: startups_reinvent.splashthat.com for:

Mentor Sessions: You'll get paired with a technical or business expert to offer guidance on your most pressing problems, or just something you've always wanted to know.

Keynote Viewing Party: On Tuesday, Dec. 3, the AWS Startups team will host a brunch-style keynote viewing party for the startup community at Startup Central. Enjoy some waffles, bacon, and yes, coffee, as you digest all Andy Jassy has to announce.

Connections: The [AWS Connections](#) team is hosting Connections @ re:Invent, an opportunity for our enterprise and startup customers to meet one another in a 1:1 meeting format.

Pre-Gaming re:Invent

SUNDAY, DEC. 1

Midnight Madness

10:30PM - Midnight, Venetian

Once again AWS will be hosting a pep rally to kick off the week and welcome our most dedicated fans. Midnight Madness provides a sneak peek into re:Invent, complete with a chicken-wing eating extravaganza, a full air band performance, and a scavenger hunt.

MONDAY, DEC. 2

Welcome Reception

4:00PM – 7:00PM, Venetian

Here's where you'll get a feel for the power of thousands and thousands of people all thinking about containers, AWS Lambda, and machine learning at the same time. Come meet your fellow startup entrepreneurs and kickoff re:Invent in earnest.



MONDAY, DEC. 2 - THURSDAY, DEC. 5

Startup Sessions





AWD MARKETPLACE & SERVICE CATALOG
Connections

AWD MARKETPLACE & SERVICE CATALOG
Learning Lounge

r3.

SLAMDATA

Find the Right Software & Services for Your Business

AWD MARKETPLACE & SERVICE CATALOG
Proc Hub

Time: *Monday, 5:30PM @ Bellagio (Level 1, Monet 1 - T1)*

Title: How Ginkgo Bioworks uses AWS to make organisms

Speaker: Dave Treff, Director of Information Technology & DevOps at Ginkgo Bioworks

Ginkgo Bioworks makes custom microbes for a wide range of industries. Each year, the company makes three times as many microbes as the year before. For each project, it must design microbes' metabolism, genetic sequences, and potentially new laboratory protocols. It also must keep track of millions of laboratory operations and measurements. To do this, Ginkgo Bioworks leverages AWS to create its microbe designs, run workflows, aggregate data, and run analytics—all at an exponentially accelerating speed. In this session, learn about the company's migration process to AWS and how it is being used to scale Ginkgo Bioworks' operations.



Time: *Tuesday, 2:30PM @ MGM (Level 1, Grand Ballroom 119 - T1)*

Title: The Modern Startup: A look at today's most successful architectures

Speaker: Mackenzie Kosut, Startup Evangelist at AWS

The approach among the most successful startups is almost unflinching to adopt early, iterate quickly, and disrupt, disrupt, disrupt. Under the technical hood of all that velocity and change are modern cloud architectures. We've collected a handful of the best architectures from top startups around the world. We'll dive into their design decisions to understand what makes these architectures modern, and why you should consider adopting them. We'll dig into deployments, orchestration, data analysis, and security to give you a complete view of the newest and most successful cloud trends emerging from the world of startups.



Time: *Tuesday, 5:30PM @ Bellagio (Level 1, Monet 1 - T1)*

Title: **How to build a company founded on engineering principles**

Speaker: **Brian Scanlan, Principal Systems Engineer at Intercom**

Intercom is “all in” on AWS—a strategy that’s aligned with the engineering principles used to build the company. This talk covers how the company uses those principles to make engineering decisions. Learn about the evolution of Intercom’s architecture, from a handful of Amazon EC2 hosts to thousands of instances. Also learn how Intercom uses Amazon DynamoDB, AWS Lambda, Amazon SQS, Amazon Aurora, Amazon Redshift, Amazon Kinesis, and more. Finally, learn why Intercom decided against leveraging microservices, and why this has increased its ability to move fast and ship great products.



Time: *Wednesday, 8:30AM @ Bellagio (Level 1, Monet 1 - T1)*

Title: **Using machine learning models to fill 23,000+ hotel rooms**

Speaker: **Suvesh Malhotra, VP of Engineering at OYO Rooms**

We all book hotels and workspaces based on price and availability, but it’s what a place looks like that often tips our decision. For OYO Rooms, among the world’s largest hotel and workspace operators, keeping more than 23,000 hotels and other properties in 18 countries filled depends upon delivering the perfect image at the perfect time. As OYO Rooms adds hundreds of properties and multiple cities every month, learn how it uses Amazon SageMaker to build machine learning models that ensure images of all those new spaces are not just consistently high quality, but get added as fast as possible.



Time: *Wednesday, 12:15PM @ MGM (Level 1, Cedar Ballroom 254 - T2)*

Title: **How Coinbase handles incident management by leveraging AWS**

Speakers: **Amy Li and Lalita Maraj, Site Reliability Engineer, Infrastructure Engineer at Coinbase**

Coinbase strives to be the most trusted digital currency exchange, which means reliability and security are top priorities. However, this doesn't mean it is incident free. As the cryptocurrency space evolves, Coinbase inevitably faces new engineering challenges. This talk walks through how the Infrastructure team uses Lambdas and SES to build an Incident Bot that helps coordinate, monitor, and improve incident response in our organization. The AWS infrastructure at Coinbase enables developers to securely and rapidly investigate and solve technical problems. We'll cover how we made a user-friendly incident process - from creating an incident to reviewing a post mortem.



Time: *Wednesday, 1:45PM @ MGM (Level 1, Cedar Ballroom 254 - T2)*

Title: **Flexport: Using AI/ML to make global shipping easy**

Speaker: **Chien-Liang Chou, VP of Engineering at Flexport**

The global shipping market is valued at more than \$1 trillion. Flexport is trying to disrupt this industry by using the latest technology to automate processes that haven't changed in decades. In this session, learn how Flexport is using AI/ML (Amazon Textract and Amazon SageMaker) to process a wide range of documents that are required to move goods from one part of the world to another, and also how the company is building a knowledge graph around logistics to improve every shipment its customers make.

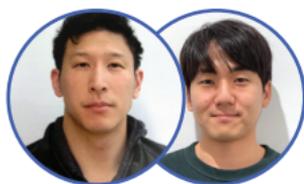


Time: *Wednesday, 2:30PM @ Bellagio (Level 1, Monet 1 - T1)*

Title: Using Amazon EMR to build a Spark ecosystem at Opendoor

Speakers: Mike Chen, Head of CORE Engineering and Min Jo, Software Engineer at Opendoor

In this session, you'll learn how Opendoor, an online home-buying and selling service, manages medium-sized real estate data using Spark. The session covers the journey from in-house data processing solutions using Kubernetes to benchmark against providers, such as Amazon EMR and Databricks, to migrating to Amazon EMR to achieve a balance of cost and performance. As a cost-conscious startup with heavy data processing needs, Opendoor had to balance cost, performance, availability, and developer experiences when designing its ETL and machine learning platform. This session focuses on how Opendoor optimized its data workflow by migrating Spark workloads from Kubernetes to Amazon EMR.



Time: *Wednesday, 4:00PM @ MGM (Level 3, Chairman's Ballroom 362 - T1)*

Title: Personal Capital: Lessons from a year with Amazon EKS

Speakers: Ritesh Shetty, Principal and Donya Izadi, Senior Software Engineer at Personal Capital

Personal Capital is an online financial advisor and wealth management company. In this session, learn how the company went from one week of development and one week of testing to multiple releases per day, and along the way significantly increased its team's productivity using Amazon Elastic Kubernetes Service (Amazon EKS). Specifically, hear how managed Kubernetes let Personal Capital focus on its core financial business, how the company built a true engineering DevOps team, how byproducts of Kubernetes on AWS helped, and how autoscaling was used to address cost.



Time: *Thursday, 11:30PM @ MGM (Level 3, Chairman's Ballroom 366 - T1)*

Title: Building the future of writing with AWS Lambda
Speaker: Ellen Musick, Senior Software Engineer at Textio

The future of writing is knowing how well your words work before anyone reads them. Textio is building an augmented writing platform and using AWS to do it. Engineering teams are using Lambda to power the platform through web applications, data science, and infrastructure. This talk covers several different use cases where Lambda has empowered Textio to quickly build and deploy services. This talk also covers Textio's approach to using Lambda as it designs services.

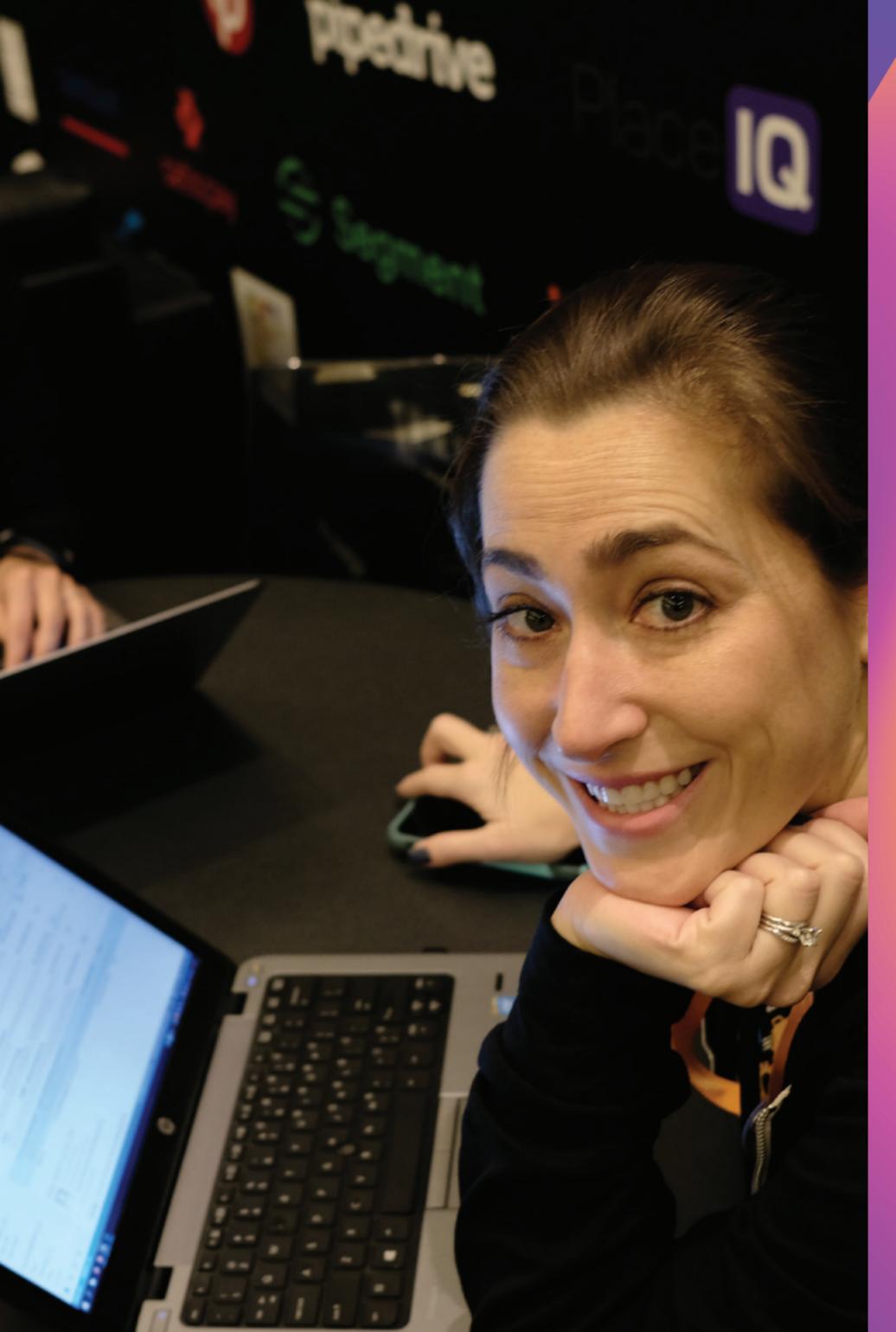


Time: *Thursday, 1:00PM @ MGM (Level 3, Chairman's Ballroom 358 - T1)*

Title: How Affirm leverages AWS to support a unified data lake
Speaker: Greg Sterin, Senior Software Engineer at Affirm

At Affirm, data is its greatest asset. Data is used to track how its products are doing, make strategic decisions, fuel machine learning model training, analyze user trends, detect fraud, and generate reports that are required by a variety of customers and regulators. In this session, learn how Affirm uses Amazon EMR, Amazon Redshift, Amazon Redshift Spectrum, Amazon Athena, Amazon Aurora on Amazon RDS, and AWS DMS to support a unified data lake. Also learn how the company addresses the tradeoffs between different types of data analytics use cases.





Executive Keynotes

The keynotes at re:Invent 2019 will deliver the latest news about AWS products and services, inspiring you to push boundaries and innovate in the cloud. Join AWS executives and customer guest speakers as we put the spotlight on technical innovation and explore what's possible in the cloud with AWS.

Monday Night Live

MONDAY, DEC. 2

Join Peter DeSantis, VP of AWS Global Infrastructure and Customer Support, to learn how AWS infrastructure delivers the most flexible, reliable, and secure cloud computing environment available today.



Andy Jassy

TUESDAY, DEC. 3

Andy Jassy, CEO of AWS, takes the stage Tuesday morning to share his insight and the latest news about AWS customers, products, and services.



Can't watch live? Stop by Startup Central to watch his keynote over brunch with your fellow entrepreneurs.

Global Partner Summit

WEDNESDAY, DEC. 4

Watch Doug Yeum, Head of AWS Worldwide Channels and Alliances, deliver the GPS keynote where he will share how partners can innovate and grow with AWS.



Dr. Werner Vogels

THURSDAY, DEC. 5

Join Dr. Werner Vogels, CTO of Amazon.com, to learn about the technical underpinnings of AWS services and the architectural design investments Amazon is making.



AWS Startup Programs to Know

Want to engage more deeply with AWS Startups?

Check out the following programs:

AWS EdStart

AWS EdStart, the AWS educational technology (EdTech) startup accelerator, is designed to help entrepreneurs build the next generation of online learning, analytics, and campus management solutions on the AWS Cloud. Learn more at aws.amazon.com/awstedstart.

AWS Public Sector

Public Sector startups drive technology and business innovation for government, education, nonprofit, and non-governmental organizations. AWS helps startups develop next-generation technology to combat homelessness, enable first responders, empower students, and more. Learn more at aws.amazon.com/government-education/startups.

AWS Marketplace

AWS Marketplace makes it easy for startups to grow at scale by giving you access to millions of AWS customers looking for innovative products from startups like you. We help you get the visibility you need to gain traction in the market, allowing you more time to focus on your core business. Learn more at aws.amazon.com/campaigns/awsmvp-startups.

Amazon Launchpad

Amazon Launchpad provides resources, expertise, and global infrastructure to startups looking to sell and deliver innovative products to millions of Amazon customers. We work with leading venture capitalists, accelerators & incubators, and crowdfunding platforms to identify new and inspired products for the world to discover. Learn more at www.amazon.com/launchpad/startups/signup.

MONDAY, DEC. 2 - THURSDAY, DEC. 5

Startup Chalk Talks



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Times: *Monday, 12:15PM @ Venetian | Palazzo (Level 2, Veronese 2405 - T2)*

Tuesday, 1:45PM @ Mirage (St. Thomas B - T2)

Title: **Reduce Churn Using Machine Learning**

Speaker: **Rob De Feo, Startup Evangelist at AWS**

Increasing customer lifetime value by reducing churn is often an existential matter for startups with repeat-business models. Technical teams looking to predict customer behavior—who will happily stay and pay, and who is ready to jump ship—have largely relied on a set of too-simple metrics. The reason for this less-than-ideal approach is that meaningful analysis has typically been too hard and too pricey for startup budgets. That is, until now. Learn how readily available machine learning frameworks and tooling make it possible for companies of any size to detect and reduce churn.



Times: *Monday, 4:00PM @ MGM (Level 1, Boulevard Ballroom 161 - T1)*

Tuesday, 4:00PM @ Venetian | Palazzo (Level 2, Veronese 2406 - T1)

Title: **Predicting What Your Customers Really, Really Want**

Speaker: **Rob De Feo, Startup Evangelist at AWS**

Targeting customers with the right recommendations at the right moment is critical for startups that offer multiple products or services (and for larger companies as well). By combining historical usage data with other variables in your business and the right machine-learning model, your customers can receive 50% more accurate recommendations for your products or services. Discover how to collect and store data, and how to train machine-learning models to predict what your customers want.



Times: *Tuesday, 3:15PM @ Venetian | Palazzo (Level 4, Lando 4202 - T2)*

Wednesday, 12:15PM @ Mirage (Antigua B - T2)

Title: Startup Engineering Exchange

Speaker: Mackenize Kosut, Startup Evangelist at AWS

This session is for startup teams who are looking to get advice from fellow startups and from our own startup solutions architects. Bring a project you're currently working on related to DevOps (e.g., automation, deployment, security, monitoring) and we can work together as a group to help whiteboard your ideal architecture. Whether you're facing a difficult build today or wanting to share your personal experience and knowledge, this chalk talk aims to be a fun and collaborative (maybe even therapeutic) way to help each other. Sharing of late-night war stories is encouraged.



Times: *Tuesday, 7:00PM @ Venetian | Palazzo (Level 2, Veronese 2406 - T1)*

Thursday, 3:15PM @ Venetian | Palazzo (Level 2, Veronese 2405 - T2)

Title: **Quantifying What Makes Your Happiest Customers So Happy**

Speaker: **Rob De Feo, Startup Evangelist at AWS**

Customers are using your product because it's solving an important problem for them. However, that doesn't mean that they are entirely happy. Often, your product solves only part of the problem, and your customers have work around your product's limitations. Or your product has features that provide a lot of value but customers aren't using them yet. In this session, learn ways to identify and measure which features make customers happy and how to help customers get the most value from your product.



TUESDAY, DEC. 3

Startup Central Continues at the Venetian



Time: 11:10AM - 12:00PM, Startup Central @ Venetian

Title: The Cloud Information Overload Survival Guide

Speaker: Ken Robbins, President and Founder at Cloud Pegboard

Are 2,000 feature announcements per year getting you down? Feel like you're spending too much time trying to keep up with every new development? In this talk, Cloud Pegboard President and Founder Ken Robbins explores the AWS information landscape and provides you with practical strategies and tools to help you stay current while ensuring that you don't miss important information needed to excel as an AWS professional. This discussion includes when and how to best leverage resources such as AWS, Cloud Pegboard, and more.



Time: 12:00AM - 12:50PM, Startup Central @ Venetian

Title: Building a Highly-Scalable, Ultra-Fast, and Efficient User Behavioral Analysis Engine

Speaker: Shadi Rostami, Senior VP of Engineering at Amplitude

In this talk, Amplitude Senior VP of Engineering Shadi Rostami will explain the architecture of the company's user behavior analysis engine, Nova. She will also walk through how Nova can help enable interactive self-serve analytics by working with a wide range of user data, including data that you may already be collecting and storing across your AWS portfolio.



Time: 12:50AM - 1:40PM, Startup Central @ Venetian

Title: How Amazon SageMaker Helped NerdWallet
Build an ML Platform

Speakers: Ryan Kirkman, Senior Engineering Manager,
Sharadh Krishnamurthy, Staff Software Engineer
at NerdWallet

NerdWallet connects millions of users with the best financial products for them, and data science is an important piece. Six months ago, it took months for NerdWallet to launch and iterate on models; now it takes only days. In this talk, Ryan Kirkman, senior engineering manager, and Sharadh Krishnamurthy, staff software engineer, explain how NerdWallet massively increased its rate of data science learning by building a machine learning platform on top of Amazon SageMaker and Apache Airflow. They also share how Amazon SageMaker's BYO container feature helped them design a human-centric data science workflow and reuse parts of NerdWallet's existing build/deploy system.



Time: 1:40PM - 2:30PM, Startup Central @ Venetian

Title: Log Data Analysis on Redshift and AWS Glue

Speaker: Tetsuya Mase, Senior Architect at Sansan

Headquartered in Japan, Sansan offers business-card contact management services to more than two million users around the world. In this talk, Tetsuya Mase, senior architect at Sansan, discusses how his team manages user logs on AWS using a variety of services, including Amazon Kinesis Data Firehose, Amazon S3, AWS Glue, and Amazon Redshift. He also covers best practices that his team has learned for loading data from AWS Glue to Amazon Redshift.



Time: 2:30PM- 3:20PM, Startup Central @ Venetian

Title: Building The Factory Of The Future Today With Robotics & ML

Speakers: Nick Ciubotariu, Senior Vice President of Engineering, and Jim Puzar, VP & Liason to Bright Machines at Flex

Bright Machines is revolutionizing manufacturing by using adaptive robotics, computer vision, machine learning, and sensor technology to automate final product assembly. The company has deployed 30+ software-defined microfactories to customer manufacturing sites across Asia, Europe, and North America. It has leveraged AWS since its founding, using Amazon SageMaker, AWS Lambda, and Amazon EKS for deep learning; Amazon EMR, Amazon Neptune, and Amazon DocumentDB for analytics; and more. In this talk, Bright Machines SVP of Engineering Nick Ciubotariu and Flex VP & Liason to Bright Machines Jim Puzar talk about the company's journey, customer case studies, and how it uses AWS to scale.



Time: 3:20PM - 4:10PM Startup Central @ Venetian

Title: How Travel App Klook Built an Evolving IT Infrastructure

Speakers: Bernie Xiong, CTO & Co-founder, and Tim Yu, Director, Payment Solutions at Klook

Based on a global vision that existed since inception, travel app Klook and its IT infrastructure have gone through many iterations, catering to unique needs as the app expanded aggressively to multiple geographies over a short period of time. As it scaled, Klook tackled many challenges, including how to automatically scale the application, how to effectively offload to managed DB on AWS, and how to achieve compliance as a global business provider. In this talk, Klook's CTO & Co-founder Bernie Xiong and Director, Payment Solutions Tim Yiu walk through the evolution of Klook's infrastructure as well as how AWS has helped Klook address and overcome challenges.



Time: 4:10PM - 5:00PM, Startup Central @ Venetian

Title: Using ML to Help Customers Manage Chronic Conditions

Speaker: Anmol Madan, Chief Data Officer at Livongo

Livongo's Applied Health Signals platform offers Livongo's customers clinically based insights that make it easier to stay healthy and drive behavioral change. By using complex machine learning models built on the AWS stack, the company provides a mobile experience, coaching, and medication support for managing a wide range of chronic conditions, including diabetes and hypertension, and for achieving weight loss. In this talk, Livongo Chief Data Officer Anmol Madan explains how the company uses AWS services such as Amazon Redshift, Amazon EC2, and Amazon S3 to securely process hundreds of millions of data points and efficiently experiment, optimize, deploy, and track the performance of its ML models.



Time: 5:00PM - 5:50PM, Startup Central @ Venetian

Title: Using DynamoDB to Connect Customers & Service Professionals

Speaker: Prathi Shastry, Site Reliability Engineer at Thumbtack

Thumbtack is a platform that connects customers to over 2,000 service professionals. Thumbtack developed Pendulum, its data replication service, to replicate and stream DynamoDB tables across different AWS regions and accounts. In this talk Prathi Shastry, Thumbtack site reliability engineer, explains how Thumbtack's engineers were able to do so.



WEDNESDAY, DEC. 4

Startup Central Continues at the Venetian



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for the speakers?

in at [slido.com](https://www.slido.com)
#startup



Time: 10:40AM - 11:30AM, Startup Central @ Venetian

Title: How Autoscale Lets Braze Efficiently Send 2B+ Messages A Day

Speaker: Jon Hyman, CTO and Co-founder at Braze

Braze, a digital customer engagement platform, currently automatically scales more than 10,000 servers each week and relies on Amazon EC2 Auto Scaling groups to cost-effectively handle spikes in data and messaging traffic. In this talk, Braze's CTO and Co-founder Jon Hyman discusses Braze's system architecture for managing Auto Scaling. This is a process that isolates Braze's customer base into separate "clusters" that are each tied to multiple EC2 Auto Scaling groups. Hyman also shares some lessons learned as Braze has grown over the past eight years.



Time: 11:30AM - 12:20PM, Startup Central @ Venetian

Title: Leveraging AWS for Analytics, Fraud Detection & AI/ML

Speaker: Charumitra Pujari, VP of Machine Learning at Paytm

Founded in 2010, Paytm is India's largest payment gateway that offers services for both customers and merchants. Currently valued at \$10 billion, Paytm has raised more than \$2.8 billion in capital from the world's leading investors, including Berkshire Hathaway, SoftBank, and Alibaba Group. The company has over 140 million monthly active users and processes more than 400 million transactions every month. In this talk, Paytm VP of Machine Learning Charumitra Pujari explains how Paytm uses Amazon P3 instances, AWS Lambda, Amazon EMR, Amazon Athena, Amazon Kinesis, and Amazon Elasticsearch Service to analyze transactions in real time and prevent fraud at scale.



Time: 12:20PM - 1:10PM, Startup Central @ Venetian

Title: Building High-performance Data Pipelines During Migration

Speaker: Shivnath Babu, CTO & Co-founder at Unravel

The full-stack data collection and machine learning algorithms of AI-powered APM platform Unravel generate the migration intelligence needed to move on-premises clusters and workloads to AWS quickly and reliably. In this talk, Unravel CTO and Co-founder Shivnath Babu, explains how after the platform's automatic cluster discovery profiles an on-premises cluster, the cloud mapper processes the generated cluster profile and recommends optimized migration plans to AWS services. He also describes multiple strategies for cloud migration—including optimized lift and shift, cost reduction via observed usage, and goal-driven cluster decomposition—which help customers achieve different goals for cost and availability.



Time: 1:10PM - 2:00PM, Startup Central @ Venetian

Title: Processing Billions of Events per Day with AWS Fargate

Speaker: Alex Haro, President and Co-founder at Life360

Life360 leverages a full suite of AWS services to support a data Lambda architecture to receive, ETL, and process billions of user events per day. In this session, President and Co-Founder Alex Haro, walks through how Life360 has implemented a lightweight container running in Fargate that fans out messages to Amazon Kinesis for rapid insights and into the Life360 data lake built with AWS Lake Formation.

Once the messages are in the data lake, Life360 uses AWS Glue to create data catalogs to drive several business reports from premium subscription tracking to user acquisition insights that are viewable in Amazon QuickSight.



Time: 2:00PM - 2:50PM, Startup Central @ Venetian

Title: How to Build a Digital Bank Using AWS

Speakers: Chris Evans, Platform Team Lead and
Suhail Patel, Senior Software Engineer at Monzo

Monzo has built a bank for 3.5 million customers, and it's growing fast, primarily by leveraging open-source cloud-native technology. From working with banking regulators to providing scalable, secure infrastructure primitives, AWS was an obvious choice for Monzo's foundation. In this talk, Monzo Platform Team Lead Chris Evans and senior Senior Software Engineer Suhail Patel explain how services such as Amazon EC2, Amazon S3, AWS IAM, Amazon GuardDuty, and AWS Shield enable processing payments under tight latency and reliability tolerances. They also share what it takes to run Monzo's own minimal physical infrastructure and how they have linked it to AWS Direct Connect to securely and reliably transmit payments.



Time: 2:50PM - 3:40PM, Startup Central @ Venetian

Title: Cloud, Blockchain, and the Resource-optimized Future

Speaker: Jeff Garzik, CEO and Co-founder at Bloq

Blockchain technology is generating a great amount of excitement among businesses, governments, and developer communities alike. So as digital resources increasingly become tokenized and tradeable on tomorrow's blockchain networks, managing these tokenized resources will become vitally important. Blockchain networks and tokenized assets will need to be utilized in concert with cloud computing, autonomous systems, and AI for this to materialize. In this session, Jeff Garzik, CEO and Co-founder of Bloq, covers how these components fit together with the help of AWS and products such as Amazon Elastic Block Store, Amazon DocumentDB, and Amazon CloudWatch, to build the tokenized future.



Time: 3:40PM - 4:30PM, Startup Central @ Venetian

Title: The Awkward Teenager: Learnings from One U.K. Unicorn's Story

Speaker: Alison Bell, Senior Technical Program Manager at Deliveroo

In this talk, find out what food delivery company Deliveroo has learned by growing from an early-stage, 20-person startup into a “teenage” business with an awkward growth phase and then reaching its current status as an enterprise company with over 300 engineers. Deliveroo Senior Technical Program Manager Alison Bell discusses the challenges of building a leading business during hypergrowth—from building consensus to establishing ways of working and onboarding at scale to maintaining standards and culture. She also explains how Deliveroo works with AWS, creates force multipliers, and continuously learns and improves.



Time: 4:30PM - 5:30PM, Startup Central @ Venetian

Title: Efficiently Operating Mass Real-time Data Infrastructure

Speaker: Todd Greene, CEO at PubNub

In operating a global real-time data infrastructure, PubNub processes over a petabyte of data each month. Though the concept of strong data storage layers wasn't initially on PubNub's roadmap, it became clear that nearly infinitely scalable storage capacity is a business requirement. In this talk, CEO Todd Greene walks through the technical decisions around powering a storage layer for an ever-growing number of users. From compliance to vendor lock-in to data replication to security, Greene shares how to build a resilient, scalable storage layer without sacrificing cost or performance and how to deliver 99.999% uptime guarantees at global scale.



THURSDAY, DEC. 5

Startup Central Continues at the Venetian





Time: 10:40AM - 11:30AM, Startup Central @ Venetian

Title: Security Truths from the Trenches at Netflix & Lending Club

Speaker: Brian Johnson, Co-founder at Crucyble

There is the security that AWS supplies across all its services, and there are the practices that every company needs to implement from its own side. Crucyble Co-founder Brian Johnson spends his days (and nights) making sure companies do it right, pulling from over two decades of security experience at companies like Netflix and LendingClub. In this talk, learn how to scale security as your company grows, including performing simple repeatable tasks to keep you secure. You'll also learn something of a paradox: Even though you need stellar security, your startup or SMB doesn't necessarily have to be great at it.



Time: 11:30AM - 12:20PM, Startup Central @ Venetian

Title: Safer Driving Using Sagemaker and AWS Messaging Services

Speaker: Lei Pan, Senior Director of Engineering at Nauto

AI technology company Nauto improves commercial fleet safety with an intelligent driver safety system that analyzes how drivers interact with the vehicle and the road, to prevent distracted driving and collisions. In this talk, Nauto Senior Director of Engineering Lei Pan shares how Nauto leverages Amazon SageMaker and the core messaging services Amazon SNS and Amazon SQS to continually evolve the intelligence of its dash cameras and other IoT devices. He also discusses how Nauto reduces model training overhead through strong central governance, workload standardization, and efficient utilization of GPUs and containers via Amazon ECS.



Time: 12:20PM - 1:10PM, Startup Central @ Venetian

Title: How Nubank Built a Multi-layer Security Strategy Using AWS

Speaker: Jonas Abreu, Principal Engineer & Security Evangelist at Nubank

For Nubank, the largest financial technology company in Latin America, airtight cloud security is of the utmost importance. In this talk, Nubank Principal Engineer & Security Evangelist Jonas Abreu discusses best practices and use cases for protecting AWS environments. He also explores layered security solutions such as AWS Security Hub, Amazon GuardDuty, and Amazon Inspector, as well as perimeter services and other security tools that provide insights into a given environment and allow users to manage it securely.



Time: 1:10PM - 2:00PM, Startup Central @ Venetian

Title: Leveraging AWS and AI to Understand User Behavior

Speaker: Matt Zeiler, Founder & CEO at Clarifai

Clarifai offers a computer vision AI platform that uses visual recognition to help solve complex problems in a wide array of industries. In this talk, Founder and CEO Matt Zeiler discusses and demonstrates how the New York-based startup can detect and track people and objects for retail, security, and aerial use cases using images and video technology. Clarifai's platform and development run on AWS, leveraging services such as Amazon RDS, Amazon EC2, and Amazon ElastiCache, but applications can also be deployed in IoT or on premises.



Time: 2:00PM- 2:50PM, Startup Central @ Venetian

Title: Building Lifelong Customers in a Digital World

Speaker: Kiran Darisi, Distinguished Engineer & Co-founder at Freshworks

Founded in 2010, Freshworks is a SaaS customer engagement solutions provider. In this talk, Distinguished Engineer and Co-founder Kiran Darisi walks through Freshworks' journey, from the challenges it faced as an early startup to the successes it now enjoys as India's first B2B SaaS unicorn. He also shares how Freshworks reached these heights by leveraging AWS as a platform and APN Partnerships to hone its go-to-market strategy.



Time: 2:50PM - 3:30PM, Startup Central @ Venetian

Title: Optimizing Microservices for Scale: Deploying Kong in ECS

Speaker: Marco Palladino, CTO & Co-Founder at Kong

You've made the big leap to microservices, but what strategies do you need to scale your services effectively? Marco Palladino, CTO and Co-founder of Kong, will explore ways organizations can leverage the Kong API gateway in Amazon ECS to simplify cluster management and enable serverless functions in Lambda. He will discuss the journey to microservices, strategies for operating microservices at scale, deploying Kong using Amazon ECS, Amazon ElasticCache for Redis and Amazon Aurora with PostgreSQL Compatibility, as well as best practices for using Kong to secure, authorize and monitor microservices traffic.



Time: 3:40PM - 4:00PM, Startup Central @ Venetian

Title: Deliver Data Insights Faster with Dynamic Event Pipelines

Speakers: Christopher Tin, Senior Data Engineer and Glen Park,
Data Engineer at OfferUp

Businesses are continually defining new ways to measure performance, understand users, and detect fraud. Engineers are tasked with providing insights quickly but with minimal overhead, to enable experimentation and business agility. In this talk, OfferUp Senior Data Engineer Christopher Tin and Data Engineer Glen Park discuss how a serverless, event-driven architecture on AWS can enable these insights, as well as how OfferUp created a self-serve, dynamic event pipeline system using Amazon Kinesis Data Streams and Amazon Kinesis Firehose, among other services, to quickly turn new event types into actionable insights with minimal coding required.



Play

SUNDAY, DEC. 1

Midnight Madness

10:30PM – Midnight @ Venetian

Air Band

At Midnight Madness

Scavenger Hunt

At Midnight Madness

Tatonka

At Midnight Madness

MONDAY, DEC. 2

Welcome Reception

4:00PM – 7:00PM @ Venetian

TUESDAY, DEC. 3

Play Events

**'80s Night
at Canaletto**

6:00PM–8:00PM
@ Venetian

**AWS Product
Marketing at Chica**

6:00PM–8:00PM
@ Venetian

**Carahsoft Technology
at Sage**

**Dell Marketing
at Mercato**

6:00PM–8:00PM
@ Venetian

**Join the Nutanix Rebel
Alliance at Yardbird**

6:00PM–8:00PM
@ Venetian

**MongoDB
at Sugarcane**

6:00PM–8:00PM
@ Venetian

**NetApp at
TAO Nightclub**

6:00PM–8:00PM
@ Venetian

**Rapid7 at
Herringbone**

6:00PM–8:00PM
@ Venetian

**The Out-of-This-World
AWS Party at Cañonita**

6:00PM–8:00PM
@ Venetian

**TIBCO
at Lavo**

6:00PM–8:00PM
@ Venetian

**We Power Tech
Happy Hour**

6:00PM–8:00PM
@ Aria

WEDNESDAY, DEC. 4

Play Events

4K/8K Run

5:00AM Registration/Coat
Check @ Mirage

6:30AM Race Starts

Arts & Crafts

7:30PM @ Venetian

AWS Certification

Appreciation Reception

6:00PM-8:00PM @
Brooklyn Bowl at the LINQ
Promenade

Bingo Night

6:00PM-9:00PM
@ Venetian, ARIA

Board Game Night

6:15PM-9:15PM
@ Venetian

Choir!Choir!Choir!

7:30PM @ ARIA

Movie Night

7:30PM @ Venetian, ARIA

Ping Pong Tournament

Wed 11:00AM-6:00PM
@ Venetian

Final Round 6:00PM

Thu 11:00AM-3:00PM
@ Venetian

Final Round 3:00PM

Women in Identity, Security and Privacy Gathering

4:00PM – 6:00PM
@ Encore 2

THURSDAY, DEC. 5

re:Play

8:00PM – Midnight

Broomball

At re:PLAY

Dodgeball

At re:PLAY



AWS re:Invent

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