SAI PRASHANTH CHANDRAMOULI ("SAI")

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SUMMARY

Full-stack Software Development Engineer and Bar Raiser at Amazon with 5+ years of experience building secure Amazon-scale web applications with Ruby on Rails, JavaScript - jQuery and ReactJS, SDKs for the Android platform, backend services with Java, Kotlin, and serverless applications using AWS technologies. Mentored 16 folks at Amazon over the last 3 years and helped 8 of them get promoted. Speaker and workshop host at 25+ Amazon-internal and external conferences, currently serving as Core Committee member for Webdevcon - Amazon's premier Front-end Engineering conference.

EXPERIENCE

Amazon, Software Development Engineer II, Alexa Runtime.

2020 - Present

- Co-creator and lead designer of the SDK and Device software for a **new Alexa technology (patented)** that allows Alexa to be integrated with Android platform with minimal effort, reducing the engineering effort from **8 weeks to 0.2 days (99% reduction** in time consumed). Launching with <u>leading US</u> telecom provider enabling a revenue stream of \$27.6 million.
- Currently leading a **team of 3 engineers** designing the extension of the above technology to other platforms (iOS, Web) which will enable an additional incremental revenue stream of **\$24 million** pending approval from launch partner.
- Lead a **team of 3 engineers** to scale **2 Tier-1 services** (Amazon business critical services) and perform Chaos/Resiliency testing to update Infrastructure setup, resulting in **zero** High-Severity events and **100% availability** for Christmas 2020.
- Defined the **Developer Experience roadmap** for the On-the-Go initiative by collaborating with Product team for Operational Planning (OP1) and pushed for the most impactful features to be funded and prioritized.
- Lead engineer who implemented the On-the-Go initiative and **Skill Resumption** feature for Alexa (announced at Alexa Live 2020 and covered by leading tech magazines like <u>Techcrunch</u>), launching 6 new Alexa powered products (earphones, glasses, microwave, etc.) in 2020 and enabling a revenue stream of **\$6.2 million** for Amazon.
- Serving as a **Bar Raiser at Amazon**, conducting **380+ interviews** and **leading debriefs** and **driving consensus** for hiring decisions across a multitude of roles, including Software Developers, Front-end Engineers, Product Managers, Data Scientists for Amazon, resulting in **116** successful hires.

Amazon, Software Development Engineer II, Compliance - Transaction Risk Management.

2017 - 2019

- Designed and implemented both the front-end and back-end for a **Self Service portal for non-engineers** (TPM's, Product and Compliance Managers) to automatically generate the code for **launching risk investigation** tools in different regions and marketplaces, reducing the engineering effort from **3** weeks to **0.5** days (96% reduction in time) for each new region, resulting in **3-year annualized savings** of \$350,000.
- Lead a **team of 4 engineers** through requirements, design and implementation phases for the Brexit-Compliance project, working with a cross-functional team of UX designers, Product managers and Compliance officers from London and Luxembourg to achieve the changes needed for Amazon to be compliant with Brexit.
- · Implemented and launched risk investigation tools in **3 new regions** Amazon Payments **UK**, **Europe**, and **India** enabling **18 types** of investigations for Amazon businesses to stay compliant with regulations.
- Designed and implemented clustered case support for investigating related merchants enabling investigations of up to **2800 sellers simultaneously** to be conducted and filed to regulatory bodies, resulting in a **savings of \$12,000** per year.
- Migrated legacy search service to AWS ElasticSearch reducing page load times from 8 seconds to 3.4 seconds (57% reduction) and reducing hardware cost by \$6500 a year (70% reduction in cost).

Amazon, Software Development Engineer, Compliance - Suspicious Activity Monitoring.

2016 - 2017

- Designed and implemented a pre-push hook to verify code before merging with live pipelines that reduced pipeline failures from **24 failures** a month to **11 failures** (**54% reduction** in failures) a month.
- · Implemented and launched support for Suspicious Activity monitoring, Denied Party Screening, Identity verification and TIN verification.
- Designed and implemented a **Bulk report generation and download** feature, reducing investigation time from **9 hours** to **under 6 minutes** (98% reduction in time consumed) resulting in cost savings of \$30,000 per year.
- . Received "Truth Seeker" award for actively working to reduce operational cost of software.

TECHNICAL SKILLS

Technologies: HTML, CSS, JavaScript (ReactJS, jQuery), Ruby on Rails, Java, Kotlin, Android development.

AWS Technologies: Lambda, API Gateway, Amplify, AppSync, Cognito, DynamoDB, ElasticSearch, SQS, SNS, Network Load Balancer.

SPEAKING ENGAGEMENTS

Presented talks on the following topics to a combined total of 2300+ Amazon developers:

Webdevcon - Amazon's front-end engineering conference. Edinburgh, Seattle, Amsterdam, New York, Virtual.

2018 - 2021

- . Using ${\bf Functional\ Programming\ with\ Java}$ and JavaScript to reduce operational burden.
- Data modeling for **DynamoDB / NoSQL** to support high read loads.
- . Deno JS Usage at Amazon as a replacement for Node.js.
- . Using **React hooks** in production at Amazon focusing on Operational readiness.
- $. \ Introductory\ talk\ on\ using\ React\ hooks\ to\ promote\ adoption\ of\ Hooks\ across\ Amazon.$
- · Using CSS Grids in production to re-architect the Alexa web-app skill page.

React Native Amazon (RNA) - Amazon's front-end engineering conference.

2020

React Native with AWS toolchain for secure deployment in production for Amazon's external facing products.

Zoncon - Amazon's premier security conference.

2018

· Presented a talk to 1200 engineers on E-Mail header injections and how to prevent it in Amazon systems.

WORKSHOPS

Conducted the following workshops to a combined total of **800+** Amazon developers:

Webdevcon - Amazon's front-end engineering conference. London, Amsterdam, New York, Virtual.2018 - 2021. Creating and maintaining Component libraries for React based projects.

- · Using **React Native with Electron** to create multi-platform applications from a single code-base.
- Building ReactNative Mobile apps with AWS Amplify.
- · Building Serverless Applications with AWS.
- · Using **GraphQL** to build production services at Amazon.
- Building Serverless Web Applications with Native AWS.

EDUCATION

Arizona State University, Master's (Thesis) in Computer Science - Web Security.	May 2016
Anna University, India, Bachelor's in Computer Science and Engineering.	Mar 2014