

Mathuran Sadagopan

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Skills

Programming Languages: Kotlin, Java, TypeScript, JavaScript, Node.js, Deno.js, Python

Frameworks / Libraries: Dagger, Guice, Spring, AspectJ, React.js, Redux, Svelte, Oak, pandas, scikit-learn

Testing Frameworks / Libraries: JUnit/TestNG, Mockito, Cucumber, Swagger

Technologies: Tomcat, Android, REST, WebSocket AWS, Docker, TensorFlow, Git

Education

BEng of Computer Engineering (CO-OP) | McMaster University | Sept 2017 - April 2021

Experience

Software Development Engineer | Amazon | June 2021 – March 2023

Delivered fraud prevention and service resiliency solutions, in Amazon consumer payments.

- Saved \$80,000/year by auditing the cost of services and removing unused log search tool
- Identified and fixed 2 bugs in away team code that unblocked the launch of real-time CVV verification in 7 marketplaces
- Pinpointed and enhanced the brownout behavior of 1 service after adding an automated stress test
- Programmed a solution to control clients, throttling limits in real time across 5 environments using AWS App Config and boosted service availability by 0.1% by preventing brownouts due to bad clients.
- Increased net customer purchases by ~\$10M due to reducing card testing and improving purchase confidence. [Kotlin, Dagger, Tomcat, Fargate]
- Discovered 3 bugs in code as a result of adding anomaly detection to key service metrics
- Simplified 5 AWS Cloudwatch dependency dashboards by implementing a generic library in typescript
- Recommended fixes to improve app performance by 5% using automated performance profiling via AWS CodeGuru
- Achieved 0 ticket queues while on-call for business-critical services at Amazon
- Established bi-weekly wiki writing sessions which brought documentation coverage from 50% to 100% in 4 months

Software Engineer Intern | Microsoft | May 2020 - August 2020

Created features for various Microsoft products such as Windows Power Toys and Microsoft Teams for Android.

- Designed and implemented 3 new features for improving Teams call experience using Android Java
- Produced features that complied with 100% of Microsoft and Android accessibility guidelines
- Successfully demonstrated the feasibility of a Windows color-picking tool via a C# UWP POC app

Full Stack Developer | Ellis Don | May 2019 – August 2019

Streamlined productivity for 100's in the construction industry by building online tools for streamlining workflows

- Developed responsive and stateful components such as form fields and dashboards.
- Formed the front end using React.js and Redux. Backend services were Go or Java Spring Boot

Projects

Siren Sense - [React Native, Python, Tensor Flow] | Jan 2021 - March 2021

- Spearheaded the development of a siren detection app to make noise-canceling headphones and vehicles safer around emergency vehicles
- Achieved a target accuracy of 80% using a React Native mobile app and an audio detection model developed using Tensor Flow