

# Mathuran Sadagopan

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## Skills

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**Programming Languages:** Kotlin, Java, TypeScript, JavaScript, Python, SQL, C#, C++, C

**Frameworks / Libraries:** Dagger, Guice, Spring Boot, React.js, Redux, Express, Next.js, Django

**Technologies:** Apache Tomcat, Android, Node.js, Deno.js, REST, gRPC, WebSocket, AWS, DynamoDB, Git

## Education

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### McMaster University | BEng of Computer Engineering (CO-OP)

| April 2021

### AWS Certified Solutions Architect - Associate

| May 2023

## Experience

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### Amazon | Software Development Engineer

| June 2021 – March 2023

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

- Saved \$80,000/year by auditing the cost of services and removing unused log search tool
- Resolved 2 issues blocking worldwide Real-time CVV verification for 1 year in 3 months.
- Improved service availability across 5 AWS regions, and prevented brownouts by implementing a solution to control clients, throttling limits in real time across 5 environments. [Java, Spring Boot, AWS App Config, Elasticache]
- Increased net customer purchases by ~\$10M due to reducing card testing and improving purchase confidence.  
[Kotlin, Dagger, AWS Fargate]
- 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
- Grew documentation coverage from 50% to 100% in 4 months by leading bi-weekly wiki writing sessions

### Microsoft | Software Engineer Intern

| May 2020 - August 2020

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

- Fixed 3 user pain-points in Microsoft Teams for Android via 3 new features using Android Java / Kotlin
- 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

### Ellis Don | Full Stack Developer

| May 2019 – August 2019

Streamlined workflows for 100's in the construction industry by building online tools and services.

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

## Projects

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### Siren Sense

| Jan 2021 - March 2021

University Capstone project built using React Native, Python and Tensor Flow.

- 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