BILAL BAIG

SOFTWARE ENGINEER

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EXPERIENCE

Open-Source Developer & Contributor Jun 2024 – Present

Hack For LA – TDM Calculator *Remote*

- Collaborated with a cross-functional team in the development of an open-source web application partnered with the LA Department of Transportation, facilitating city's planners in achieving their Mobility Plan 2035 goals
- Implemented "snapshot sharing" feature that enables users to access and view snapshots of previous output results, utilizing **JavaScript** and **Express.js** for backend APIs, and **MSSQL** for creating database stored procedures
- Enhanced User Interface and User Experience (UI/UX) by revamping **React** Components, clarifying user app navigation elements and improving accessibility

Sabbatical Sep 2023 – Sep 2024

Software Development Engineer Feb 2022 – Mar 2023

Amazon *Toronto, ON*

- Orchestrated development of microservice used in processing 1000+ daily inventory events, enhancing precision in reporting global product inventory levels
- Supervised and mentored junior engineers to effectively contribute to development of microservices for complex supply chains systems, on-boarding them with the **Java Spring Boot**, **TypeScript** and **AWS**-based systems
- Led initiative to automate the corrections of inaccurate inventory stores using AWS Lambda, S3, and DynamoDB, achieving a **15% reduction in the time spent** on manual effort data tasks
- Spearheaded rework of an inventory tracking system, utilizing AWS Step Functions, Lambda and DynamoDB, leading to an **improvement of operational accuracy by 40%** over previous iteration
- Automated process of cleaning development logs by creating a Cron script that selectively clears 100+ log files weekly, mitigating service errors previously occuring during critical development periods

INDEPENDENT PROJECTS

Crossroads: A Social app | *In-Progress*

iOS social app that connects users with nearby individuals using real-time location data and peer-to-peer connections

- Utilized **Swift**, **SwiftUI**, **Firebase** and Multipeer Framework in the developing an Apple **iOS** app with security features such as authentication requests and cryptographical randomness, mitigating malicious network attacks

Quotetaking GitHub

iOS app that enables users to conveniently save quotes from thousands of books and aesthetically displays them

- Devised an image-to-quote feature that extracts and saves a quote from text from photos, integrating Vision framework's OCR technology with **Swift** and SwiftUI, adding accessibility for physical book readers
- Optimized app performance and memory usage by implementing a lazy loading mechanism for loading quotes from **Core Data**, enhancing responsiveness and overall experience

TECHNICAL SKILLS

Languages: Java, TypeScript, JavaScript, PostgreSQL, MS SQL, Swift, Python, Golang, Objective-C, Haskell
Tools and Platforms: AWS, Git, Docker, Redis, MongoDB, NoSQL
Libraries and Frameworks: SwiftUI, Java Spring Boot, React, Core Data

EDUCATION

York University

Bachelor of Science in Computer Science *Toronto, ON*

HOBBIES & INTERESTS

Philosophy, Literature, Languages, Guitar & Piano, Fitness, Hiking, Traveling, Fashion, Motorcycles & Cars, Video Games