Uzair Rafi

905-467-2773 | urafi@uoguelph.ca | linkedin.com/in/uzairrafi/ | github.com/uzrafi

TECHNICAL SKILLS

Languages: Python, TypeScript, Kotlin, Swift, JavaScript, Rust, C/C++, Java, SQL
Back-end: FastAPI, Spring Boot, Spring, Flask, Node.js, Ember.js, GraphQL
Front-end: Next.js, React Native, Jetpack Compose, SwiftUI, React, Tailwind
Testing: JUnit, PyTest, Espresso, Jest, React Testing Library
Cloud / Tools: GCP, AWS, Git, Docker, Postman, Jenkins, Datadog, Firebase
Databases: SQLAlchemy, MySQL, MariaDB, SQLite

EXPERIENCE

FreshBooks — Sept. 2024 – Dec. 2024

Software Engineer Intern | Python, GCS, AWS, PyTest, FastAPI, Flask-SQLAlchemy — *Toronto, ON*

- Worked across **4+** microservices as a full-stack engineer, enhancing reliability and delivering core features
- Improved system reliability by **70%** by developing test cases for cloud storage migration from AWS S3 to GCS
- Wrote integration tests and mocks for edge-cases, boosting coverage by **45%** and preventing regressions
- Refactored 2 microservices for Gusto API v2, adding compatibility layers to support legacy client requests
- Built SendGrid web-hooks to track delivery events, cutting undetected email failures by **65%** across 4 flows
- Created a service-to-service update system with gRPC that prevented failures when dependent APIs changed

FreshBooks — Jan. 2024 – Aug. 2024

Software Engineer Intern | Kotlin, Swift, JUnit, Espresso, JavaScript, React, Jira — *Toronto, ON*

- Contributed to **7,000+** new installs over 8 months by shipping new mobile features using Kotlin/Swift
- Improved mileage tracking accuracy by **40%**, affecting **10,000+** trips across **5,000+** customers
- Refactored infrastructure and API integrations from WePay to Stripe, reducing support tickets by **30%**
- Wrote **50+** JUnit/Espresso tests for auth/sync/payments, cutting sync errors from **15%** to **5%**
- Authored **10+** Confluence docs on Android version migrations for **50+** dependencies, unblocking migrations
- Coordinated iOS/Android releases over 3 sprints, ensuring 0 critical bugs with QA and PM collaboration

Oriole AI Inc. — May 2023 – Aug. 2023

Software Engineer Intern | Kotlin, Swift, Firebase — *Guelph, ON*

- Led iOS/Android development for an AI TTS app, delivering **10+** core features used by **500+** users
- Implemented a multi-threaded audio pipeline, reducing latency by **34%** & improving audio responsiveness by **70%**
- Built a text-to-speech converter for **500+** domains using SwiftSoup/JSoup
- Enabled device discovery and secure pairing across mobile devices by developing a Bluetooth Low Energy interface
- Deployed a GPT-3.5 stock chatbot that handled **1,000+** queries/month, enabling real-time financial Q&A
- Boosted system performance by **30%** by improving Android/iOS lifecycle events, significantly preventing crashes

PROJECTS

UofTNest | *Next.js, Supabase, TypeScript, React*

- Designing a platform for UofT students to explore course/professor reviews via a clean, centralized UI
- Aggregated UofT and RateMyProfessors data to enable review browsing for **1,000+** courses and **2,500+** faculty
- Implemented secure email/password auth using Supabase, with session handling via React Context

Canadian Data Dashboard ⧉ | *Java, Spring Boot, JUnit, Jest, Python, TypeScript, MySQL*

- Processed **10K+** data points to power **12+** interactive visualizations highlighting housing and employment trends
- Developed **15+** JUnit and **12+** Jest integration tests across Spring Boot backend and TypeScript frontend

Molecule Viewer ⧉ | *JavaScript, Python, RESTful API, SQLite, jQuery, C, CSS/HTML*

- Built a 3D molecule viewer supporting **10,000**-atom datasets for browser-based structural analysis
- Decreased 3D rendering time by **40%** through leveraging SWIG to merge C functionality with Python

EDUCATION

University of Guelph — Sept. 2021 – Present

Bachelor of Computing | Computer Science — *Guelph, ON*