FARZAN AHMED BHUIYAN

fa2bhuiy@uwaterloo.ca · 437-264-7996 · github.com/farzanb49 · linkedin.com/in/farzanbhuiyan · farzanb.dev

Languages: C/C++, Python, Java, JavaScript
Data: SQL, MongoDB, MariaDB, Kafka, BigQuery
Frameworks: React, Vue.js, node.js, Flask, Django, Spring, Tensorflow
Tools: Git, Docker, Kubernetes, Bash, Linux, GCP, AWS, Azure, Jenkins

EXPERIENCE

Rodan Energy
Software Engineer Intern · Energy Markets Team
Sep 2023 – Dec 2023
Mississauga, ON

- Fall 2023 Co-op, Technologies: Python, Django, Azure, Vue.js, MariaDB, Docker.

NCR
Software Engineer Intern · CSPF Backend Team
Jan 2023 – Apr 2023
Waterloo, ON

- Built backend APIs on **Java Spring** microservices facilitating ATM transactions for banks with **20+ million** clients.
- Engineered endpoints with Toolkit – a **Java/Maven** project to build API endpoints with **swagger/OpenAPI** specs.
- Scaled microservices to handle **162% increase in traffic** with **Kafka** and **Kubernetes**; verified by **JMeter** load tests.
- Designed comprehensive, automated **E2E** and **JUnit** tests using **Java Spring Framework** with **~85%** code coverage.

WATonomous
Software Developer · Radar Team
Sept 2022 - Dec 2022
Waterloo, ON

- Improved classification accuracy from **84% to 92%** by implementing a new radar point cloud algorithm from an IEEE research paper in **OpenCV** and **C++** on an existing **ROS driver** for radar sensors.
- Achieved a **9% increase in object detection accuracy** by adjusting radar points based on vehicle velocity estimation.

Questrade
Full Stack Engineer Intern · Core Systems/Data Platform Team
May 2022 – Aug 2022
Toronto, ON

- Designed a FIX protocol engine in **Python** for a trading system; used QuickFIX API with a mean latency of **16.5μs**.
- Built ETL pipeline with **Dataflow** and **Apache Beam** to load **200K+ rows** of market data daily into a **MySQL** server.
- Orchestrated workflows with **Apache Airflow** and used **Datadog** to measure a **20% reduction in processing times.**
- Wrote stored procedures in **SQL** to rid **90%** of repeated queries, rewrote queries for **x1.8 reduced response times**.

MyPalate Inc.
Software Developer Intern · Full Stack Team
Aug 2020 – Nov 2020
Toronto, ON

- Beta launched a recipe sharing web application to **120+ global users** built using **React**, **node.js**, and **PostgreSQL.**
- Built a recipe recommender API with **Flask** and **ML libraries**, scraping **180K+ recipes** to increase user retention.
- Integrated the API with **node.js** backend, deployed system to AWS to horizontally scale for over **200 users.**
- Used **Redux** for state management and wrote middleware to handle duplicate requests, **halving the total API calls**.

PROJECTS   (MORE HERE)

Habitat-Portal · DocuSign Good Code **$5000USD** prize winner | React, node.js, Express, MongoDB, OAuth
PushupAI · Gives feedback on pushups using a CNN with **~88%** accuracy | React, Flask, Tensorflow, OpenCV
Watopoly · Developed a command-line game variant of Monopoly using OOP principles and MVC patterns | C++
WLP4 Compiler · Wrote a compiler for a subset of C (Placed **10th/291** students for most optimized compiler) | C++

EDUCATION

University of Waterloo, Bachelor of Computer Science, Honours
Sept 2021 - Apr 2025

- 3x Term Distinction, Double minor in Combinatorics/Optimization and Computational Math
- **Awards:** DocuSign Good Code Hackathon 2nd Place, Canadian Senior Math Contest 95th percentile

Interests: Basketball, Soccer, any sport involving a ball, Cycling, Formula 1, Gym, Hip Hop, Anime