Saleen Shahriar

https://saleen.dev

Email: saleen.shahriar@gmail.com
Mobile: 647-539-9674

Education

University of Waterloo — Waterloo, Ontario

Candidate for Bachelor of Applied Science - Computer Engineering; GPA: 87.62 — *Expected Graduation: May 2024*

Achievements: *President's Scholarship, Top Quartile Student, Dean's Honours List (2022)*

Courses: *Distributed Systems, Computer Networks, Computer Architecture, Embedded Software, Systems Programming, Concurrency, Real-Time Operating Systems, Compilers, Embedded Microprocessor Systems, Data Structures, Algorithms*

Experience

Electrans — Oakville, Ontario

Embedded Systems and Software Engineering Intern — *Sep 2023 – Dec 2023*

- **Firmware Development**: Developed firmware in C for NXP S32 and Arduino MCUs to control a robotic tractor/trailer connection system using CAN and to drive an HMI for it. Completed a design overhaul of the HMI based on user feedback, increasing satisfaction by 100%.
- **Observability**: Added SD card logging functionality to devices by interfacing with a real-time clock and extending the FatFs library to support S32 MCUs, speeding up field debugging processes by over 10x.
- **IoT**: Designed and developed a distributed IoT platform to control and monitor hardware test fixtures using Python, Go, MQTT, Docker, GCP, and InfluxDB. Optimized GCP resource usage to minimize costs by over 90%.

Autonomic — Remote

Software Engineering Intern — *Jan 2023 – Apr 2023*

- **Back-End Development**: Maintained production microservices responsible for Ford's IoT-enabled vehicles, using Spring Boot with Kotlin and Java. Performed security upgrades, eliminating 20+ CVEs across 4 services.
- **Infrastructure**: Investigated service bottlenecks, and refactored a device connectivity service, producing a 10x improvement in latency. Managed and debugged deployments using Concourse, ArgoCD, and Kubernetes.
- **Observability**: Developed Prometheus metrics and Grafana dashboards to increase observability into production code performance and to improve diagnosis capabilities.

Ford Pro — Remote

Software Engineering Intern — *Jan 2022 – Apr 2022*

- **Full-Stack**: Pioneered development of Ford Pro Title and Registration, a flagship component of Ford's fleet management software, using Vue, Spring, and MySQL along with the Model-View-Controller pattern.
- **Test-Driven Development**: Introduced TDD methodology and used JUnit, Mockito, and SonarQube to maintain 100% code coverage.
- **REST APIs**: Designed APIs to comply with OpenAPI standards. Used 42Crunch to ensure secure API design. Implemented Cucumber API acceptance tests, enhancing API clarity and quality.

Ricoh — Kitchener, Ontario

Software Engineering Intern — *May 2021 – Aug 2021*

- **Network Software**: Engineered an enterprise local network device locator from scratch, utilizing Java, SNMP, and REST APIs. Produced comprehensive documentation for its specifications, limitations, and use.

Seismic — Toronto, Ontario

Software Engineering Intern — *Sep 2020 – Dec 2020*

- **Feature Development**: Delivered client-requested features to production for a white-label SaaS sales engagement platform, using React, Angular, Express, Node, and MongoDB.

Independent Electricity System Operator — Mississauga, Ontario

Operations and Power Systems Analyst Intern — *Jan 2020 – Apr 2020*

- **Data Analysis**: Built queries and metrics dashboards using SQL and Tableau to monitor NERC/NPCC compliance of all of Ontario's electricity generators. Completely automated manual reports using SQL, Excel, and VBA, eliminating human error and decreasing report preparation time by 90%.

Skills Summary

Languages: C, Python, Java, Go, Kotlin, Scala, Javascript, MATLAB, SQL, HTML/CSS

Tools: AWS, GCP, Docker, Kubernetes, Kafka, gRPC, MQTT, Spring, Express, Svelte, React, Tableau, Cassandra