Saleen Shahriar

https://saleen.dev

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EDUCATION

University of Waterloo — Waterloo, Ontario
Candidate for Bachelor of Applied Science - Computer Engineering; GPA: 88.30 — *Sep 2019 – Present*

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

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

SKILLS SUMMARY

- **Languages**: C, C++, Verilog, Java, Javascript, Typescript, Python, MATLAB, SQL, HTML/CSS
- **Frameworks**: Spring, Django, Express, Vue, React, MongoDB, GCP/AWS, Tableau, TensorFlow, Pandas
- **Hardware**: RTL/FPGA/PCB Design, RISC-V, Intel Quartus, Proteus, Agilent Oscilloscopes and Waveform Generators

EXPERIENCE

Autonomic — Toronto, Ontario
Software Engineering Intern — *Jan 2023 – Apr 2023*

- **Back-End Development**: Developed and maintained back-end IoT services using Spring Boot with Kotlin and Java. Performed security upgrades to remove CVEs. Investigated service bottlenecks, producing a 10x performance improvement. Managed and debugged deployments using Concourse, ArgoCD, and Kubernetes.
- **Observability**: Developed Prometheus metrics and Grafana dashboards to increase observability into production code performance.

Ford Pro — Oakville, Ontario
Software Engineering Intern — *Jan 2022 – Apr 2022*

- **Full-Stack Development**: Developed Glovebox, a vehicle fleet management application, with Vue and Spring, using the Model-View-Controller pattern. Used JUnit, Mockito, and SonarQube to achieve 100% coverage.
- **REST APIs**: Designed APIs to comply with OpenAPI 2.0 standards. Used 42Crunch to ensure secure API design. Began introduction of acceptance testing with Cucumber.

Ricoh — Kitchener, Ontario
Software Engineering Intern — *May 2021 – Aug 2021*

- **Device Locator**: Pioneered the design of and implemented a network device locator by consulting RFCs and using Java, SNMP, and REST APIs. Created test cases and documented its specifications, limitations, and use.

Seismic LiveSocial — Toronto, Ontario
Software Engineering Intern — *Sep 2020 – Dec 2020*

- **Full-Stack Development**: Delivered client-requested features to production for LiveSocial, a white-label enterprise sales engagement product, using React, Angular, Express, Node, and MongoDB.
- **Security**: Assessed the viability of using Apache Cordova and BlackBerry Dynamics to build secured enterprise mobile applications for clients.

Independent Electricity System Operator — Mississauga, Ontario
Operations and Power Systems Analyst Intern — *Jan 2020 – Apr 2020*

- **Data Analysis**: Built queries and developed metrics dashboards using SQL, Tableau Prep, and Tableau.
- **Automation**: Automated manual reports using SQL, Excel, and VBA, decreasing report preparation time by 90%.
- **Operational Assessment**: Assessed Ontario power grid operations for NERC and NPCC compliance.

PROJECTS

- **RISC-V Processor**: Digital Hardware Design, Verilog, Xilinx Vivado, Pipelining
- **Real-Time Operating System**: Memory Management, Task Scheduling, Inter-Process Communication, C, ARM Kiel
- **Sentiment Classifier**: Natural Language Processing, Python, Scikit, NumPy, Pandas, Matplotlib, Flask
- **Home Security System**: PCB/Circuit Design, Embedded Development, C, Proteus, STM32 Microcontrollers
- **Multi-Threaded Web-Crawler**: Threads, Semaphores, Mutexes, C, cURL, libxml2, HTTP