Saleen Shahriar

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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

- **Ford** — Oakville, Ontario
  AV 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.
  - **REST APIs**: Designed, refactored, and tested Glovebox APIs to obey REST and OpenAPI 2.0 standards.
  - **Google Cloud Platform**: Competed in the Ford Pro Hackathon, by implementing a dead-letter queue on GCP to create a scalable, reliable, server-less messaging service using Cloud Functions, Pub/Sub, and Cloud Monitoring.

- **Ricoh** — Kitchener, Ontario
  Software Development Intern — *May 2021 – Aug 2021*
  - **Device Locator**: Consulted RFCs to pioneer the design of and implement a network device locator, using Java, SNMP, and REST APIs. Created documentation for its specifications, limitations, and instructions.
  - Integrated the Device Locator's functionality into Ricoh's device management platform, Streamline NX.
  - Developed and specified test cases for QA and testing of Device Locator's integration with Streamline NX.

- **Seismic** — Toronto, Ontario
  Software Engineering Intern — *Sep - Dec 2020*
  - **Full-Stack Development**: Delivered time-sensitive client-requested features for LiveSocial, a production cross-platform full-stack social networking application, using React, Angular, Express, Node, and MongoDB.
  - Redesigned the account connections dashboard using the Twitter, LinkedIn, and Facebook Graph APIs.
  - **Mobile Development**: Documented and experimented with the use of BlackBerry Dynamics and Cordova to build password-secured mobile applications for corporate clients.

- **Independent Electricity System Operator** — Mississauga, Ontario
  Operations and Power Systems Analyst Intern — *Jan - Apr 2020*
  - **Data Analysis**: Built queries and developed metrics dashboards using SQL, Tableau Prep, and Tableau.
  - **Automation**: Pioneered the automation of time-consuming manual reports using SQL and Excel (VBA scripts and macros), decreasing the preparation time for reports by 90%
  - **Operational Assessment**: Assessed Ontario energy market and power grid operations for NERC and NPCC compliance issues and breaches

Projects

- **Matrix Multiplication Module**: Digital Hardware Design, Verilog, Xilinx Vivado, ModelSim, Systolic Arrays
- **Real-Time Operating System**: Memory Management, Task Scheduling, Inter-Process Communication, 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**: Concurrency (threads, semaphores, mutexes), C, cURL, libxml2, HTTP