

## EDUCATION

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- **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

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- **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, Intel Quartus, Proteus, Agilent Oscilloscopes and Waveform Generators

## EXPERIENCE

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- **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

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- **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