

# Edwin Lo

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🌐 github.com/edwinlo

🌐 edwinlo.me

## Education

**University of Waterloo**

**BASc. Computer Engineering**

*Expected June 2021*

- Cumulative GPA **3.7/4.0**
- Relevant Courses: Computer Networks, Database Systems, Distributed Systems

## Skills

**Languages:** C, C++, Python 3, Java, TypeScript, JavaScript, SQL

**Frontend:** Vue.js, Android

**Backend:** Apache Hadoop, Spring MVC, Express.js, Java EE, GraphQL

## Projects

### Embedded Music Player

- Music player for the Intel Max 10 board utilizing NIOS II soft-core processor

### Password Manager App

- Web based password manager with MAC authentication and password salting

### RISC-V Processor

- 5-stage fully pipelined CPU implementing the RISC-V instruction set architecture

## Activities

- Intramurals for Volleyball
- UW Orientation Week Leader 2019
- Member of UW Badminton and UW Hip-Hop Dance clubs

## Experience



**Blackberry QNX**

*Software Engineering Intern*

**Ottawa, ON**

Fall 2020

- Developing a USB loopback driver for the QNX USB stack



**eHealth Inc.**

*Software Engineering Intern*

**Santa Clara, CA**

Winter 2020

- Worked on full UI rewrite of ehealthmedicareplans.com, eHealth's leading shopping platform used by 200,000 monthly active users (MAU)
- **Decreased web start render time by 18%** by migrating existing Backbone.js codebase to Vue.js architecture
- Created a GraphQL layer to aggregate data from existing Medicare plans APIs to improve data flow from backend to frontend

*Vue.js, GraphQL, TypeScript, ES6*



**IGNIS Innovation Inc.**

*Embedded Software Engineering Intern*

**Waterloo, ON**

Summer 2019

- Spearheaded development of a Linux graphics compositor capable of applying proprietary AMOLED display compensation via the Wayland protocol
- **Reduced power consumption by 48%** by optimizing the Android OpenGL ES implementation of the compensation pipeline

*C, C++, Android, Java, GLSL (OpenGL ES 2.0)*



**OpenText**

*Software Developer Intern*

**Richmond Hill, ON**

Fall 2018

- Enhanced and maintained company's leading digital asset management platform OpenText Media Management (OTMM)
- Implemented log tailing feature for OTMM nodes in HA configuration using Java EE servlets and jQuery, improving convenience for clients

*Java EE, JavaScript, jQuery*



**Communications Security Establishment**

*Software Developer Intern*

**Ottawa, ON**

Winter 2018

- Developed a RESTful API service for top confidential client that implements a HATEOAS structure on multiple web applications using Spring MVC
- Designed and implemented a dynamic front-end to render the Siren JSON returned from the service using Vue.js and Bootstrap 4

*Spring MVC, JavaScript, Vue.js, Pug.js, Bootstrap 4*

## Extracurricular

**UW WATONOMOUS Student Design Team**

*Core Software Member*

**Waterloo, ON**

Apr 2019 – Present

- Redesigned HD map service to use the Lanelet logical model
  - Migrated the existing feedback controller implementation for the autonomous vehicle from C++ to MATLAB
  - Implemented traffic lights submodule for the low-fidelity internal simulator
- C++, Python, MATLAB, Simulink, ROS*