

## Education

### SOFTWARE ENGINEERING, CO-OP

University of Waterloo, 2019-2024 (Expected)

- 1<sup>st</sup> Term Average: 94% (4.0 GPA)
- Received Colonel Hugh Heasley Engineering Entrance Scholarship (\$10,000)  
President's Scholarship of Distinction (\$5,000)

## Skills

### LANGUAGES

C, C++, Java, Node.js, PHP, SQL, C#, Swift, Python, HTML, CSS, JavaScript

### FRAMEWORKS

OpenGL, Shader, Unity, REST API, Selenium, JUnit, jQuery, MySQL

## Work Experience

### JUNIOR DEVELOPER

Virtro Entertainment Inc., Jul - Aug 2018

- Ported and optimized *The Station™* (Sci-Fi FPS Indie Game) into **PlayStation VR, Oculus Rift and HTC Vive** mainly focusing on lighting optimization using **Unity**.
- Developed **Virtro Attendance** (Slack-integrated application) using **Node.js** and **MySQL** to automate the manual payroll system and to keep track of team's attendance and leaves. Implemented **RESTful API** for communication with Slack server.

### SOFTWARE DEVELOPER, QUALITY ASSURANCE

HeadCheck Health, Aug 2017

- Led the development of the athlete registration automation software using **Java** which **drastically reduced the redundancy (from taking days to ~10 min.)** for a prospective concussion-diagnostics software startup.
- Worked with the QA team to create and implement **JUnit** test cases for iOS, Android and web using **Java** and **Selenium** WebDriver.

## Projects

### VR WIZARD CHESS ([LINK](#))

Hack the North, Sep - Dec 2018

- Recreated "Wizard Chess" from the *Harry Potter* series in VR using **Unity** and **C#**.
- Utilized **IBM Watson's speech-to-text technology** for giving orders to the chess pieces.
- Awarded **Winner/Finalist of Hack the North 2018**.

### REACTOR ENGINE ([LINK](#))

Personal Project, Sep 2016 - Mar 2017

- Developed a game engine for Mac OS X that utilizes **OpenGL** to render 3D models with a **scripting framework** built with **C++**.
- Implemented **entity-component-system framework** to structure the designing of game objects.

### POGO UNPLUGGED ([LINK](#))

SE 101 Group Project, Sep - Dec 2019

- Developed a self-driving car that automatically plays Pokémon Go and collects items in PokéStops around the University of Waterloo campus using **Node.js** and **Python**.
- Main contribution in autonomous driving; used **Socket.io** to create a socket connection between **AWS** server and **Raspberry Pi**; mapped out the school campus into nodes with straight paths in between.