



## Education

### University of British Columbia

*Sept 2016 – Apr 2022 (Expected), Vancouver BC*

### Engineering Physics, Computer Science Specialization – Bachelor of Applied Science GPA: 3.7 / 4.0

- **Coursework:** Software Engineering (94%), Data Structures & Algorithms (82%), Relational Databases (84%), Machine Learning Competition (93%), Robot Competition (82%), Machine Learning (84%), Science One (87%)
- **Involvements:** Orbit (Satellite Design Team) Software Developer, Math & Physics TA, Orientation Leader

## Work Experience

### Later – Software Engineer Intern

*May – Aug 2021, Vancouver BC*

- Increased output accuracy by 50%+ for Later's most used paid feature, used 2000+ times a week, by developing a scalable **Flask** and **Python** API that enables novel machine learning models to be used for the 1<sup>st</sup> time.
- Currently: eliminating 100% of API-related failures by implementing automated API documentation and diffing.

### Intel – Software Engineer Intern

*May – Dec 2020, Vancouver BC*

- Organized over 5 million data entries by developing a scalable telemetry query application, using **SQL** to query a relational database, **Python** and **Flask** for the backend, and **JavaScript**, **HTML**, and **CSS** for the frontend.
- Reduced runtimes by 30% by taking initiative to optimize and automate Intel's **Python** workflows and libraries.
- Awarded over \$200 via the Intel Recognition Program for quality, completeness, and detail of work.

### TRIUMF – Researcher & Software Developer Intern

*Jan – Apr 2019, Vancouver BC*

- Increased camera's frame rate by over 300%, using camera's software development kit and **C++** to implement dynamic memory allocation and multithreading – crucial for capturing the experiment's quickly decaying atoms.
- Corrected errors, inconsistencies, and contradictions missed by the research team for over 6 years.
- Collaborated with multi-disciplinary teams to author a work term report now published on TRIUMF's website.

## Technical Projects

### 🌀 3D-O (Web Application) – In Progress (Personal Project)

*Dec 2020 – Present*

- Mission: to combat COVID19 by sharing my creative, lifelong hobby, 3d-origami, to promote social distancing.
- 3D project-modelling interface via Three.js; Paint-by-pixel interface via React, MobX State Tree.

### 🌀 Daily Dash (Mobile Application) – 1<sup>st</sup> / 28 Teams (Course Project, Team of 4)

*Sept – Dec 2020*

- Mission: to empower users across all walks of life to achieve their life goals via regular, repeated efforts.
- Dynamic forms via React Native, MobX State Tree; Push notifications, user authentication via Google Firebase.

### 🌀 Machine Learning Robot Competition – 4<sup>th</sup> / 20 Teams (Course Project, Partnership)

*Sept – Dec 2019*

- Mission: autonomous navigation via OpenCV, reinforcement learning, and image processing tools in Python.
- Convolutional neural network, implemented with Keras, identifies alphanumeric characters with 99% accuracy.

### 🌀 Robot Competition – Top 3 / 16 Teams, Time Trials (Course Project, Team of 4)

*May – Aug 2019*

- Mission: To prototype and build a tape-following, stone-collecting robot for a student competition.
- Accurate PID control algorithm and C++ state machine enable autonomous navigation and functionality.

## Achievements

**Dean's Honour List** (80%+ GPA, 27+ credits), **1<sup>st</sup> Place** UBC 2020 Software Engineering Competition, **4<sup>th</sup> Place** Machine Learning Competition, **Honourable Mention** nwHacks 2021 (Western Canada's Largest Hackathon)

## Technical Skills

**Languages:** Python, JavaScript, TypeScript, React.js, React Native, C, C++, HTML, CSS, SQL, Java, LaTeX, Bash

**Technologies:** Git, Linux, MongoDB, Node.js, Express.js, MySQL, OpenCV, Keras, Android, AWS, Azure, Docker