



Technical Skills

- **Languages:** Python, JavaScript, C/C++, Java, React, React Native, HTML/CSS, SQL,
- **Technologies:** Git, Linux, MongoDB, PostgreSQL, SQLite, OpenCV, Keras, Tensorflow, MobX, Node, Express

Work Experience

Intel Corporation – Software Engineering Intern

- Developed a telemetry query application; Used a **SQL**-based relational database, **Python** and **Flask** for the server, and **JavaScript**, **HTML**, and **CSS** for the frontend.
- Took initiative to optimize and contribute to Intel's **Python** workflows, libraries, and APIs.
- Awarded several times, for quality, completeness, and detail of work!

Vancouver,
BC, Canada
May – Dec
2020

TRIUMF: Canada's Particle Accelerator – Beta-Decay Researcher

- Optimized data acquisition using camera's software development kit to process images.
- Increased camera's frame rate by over 300%, using **C++** to implement dynamic memory allocation and multithreading – crucial in capturing the quickly decaying atoms.
- Exposed and corrected errors and contradictions previously missed by the research team.

Vancouver,
BC, Canada
Jan – Apr
2019

Education

University of British Columbia – Engineering Physics & Computer Science, BASc.

- **Coursework:** Software Engineering (94%), Data Structures & Algorithms (82%), Engineering Physics Project I: Machine Learning Competition (93%), Introduction to Instrument Design: Robot Competition (82%), Algorithm Design & Analysis (In Progress)
- **Involvements:** Orbit: Satellite Design Team, Physics & Math Teaching Assistant

Vancouver,
BC, Canada
2016 – 2022
(Expected)
GPA: 80%

Achievements

- **Distinctions:** Dean's Honour List (80%+ GPA, 27+ credits), **1st Place** UBC 2020 Software Engineering Competition (28 teams, 100+ participants), **4th Place** Machine Learning Competition (20 teams)
- **Programs:** Science One (70 students; enriched 1st year science; 87%), **Engineering Physics** (60 students)
- **Awards:** Shane Simpson Governor General Award, Distinction in University of Waterloo Math Contests

Technical Projects

- 🕒 **3D-O – Web Application – In Progress** (Personal Project) Winter
– Mission: to combat COVID19 by sharing my lifelong hobby, 3d-origami, promoting social distancing. 2021
– 3D project-modelling interface via **Three.js**; Paint-by-pixel interface via **React**, **MobX State Tree**.
- 🕒 **Daily Dash – Mobile Application – 1st / 28 Teams** (Course Project, Team of 4) Fall
– Mission: to empower users across all walks of life to achieve their life goals via regular, repeated efforts. 2020
– Dynamically rendered forms via **React Native** and **MobX State Tree**.
– Push notifications via **Google Firebase**; User authentication via **Google Authentication**.
- 🕒 **Machine Learning Robot Competition – 4th / 20 Teams** (Course Project, Partnership) Fall
– Mission: to program a simulated robot for a **Robot Operating System** machine learning competition. 2019
– Autonomous navigation via **OpenCV**, reinforcement learning, and image processing tools in **Python**.
– Convolutional neural network, using **Keras** and **TensorFlow**, accurately identifies alphanumeric characters.
- 🕒 **Robot Competition – Top 3/15 Teams in Time Trials** (Course Project, Team of 4) Summer
– Mission: To prototype and build a tape-following, stone-collecting robot for a student competition. 2019
– Accurate PID control algorithm via **C++** enables autonomous navigation and functionality.
– State machine programmed in **C++** prioritizes software safety, control, and performance.