# LINA NGUYEN

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## Technical Skills

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

## Work Experience

### Intel Corporation

Software Engineering Intern — Vancouver, BC, Canada — May – Dec 2020

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

### TRIUMF – Canada's Particle Accelerator

Atom Beta-Decay Trap Researcher — Vancouver, BC, Canada — Jan – Apr 2019

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

## Education

### University of British Columbia

Engineering Physics & Computer Science, Bachelor of Applied Science — Expected Graduation 2022

- **Coursework:** Algorithm Design & Analysis, Data Structures, Software Engineering, Principles of Software Construction
- **Involvements:** Dean's Honour List, Science One, Orbit: Satellite Design Team, Physics Teaching Assistant, Math Teaching Assistant

## Technical Projects

### 3D-O – Web Application — Winter 2021

- Mission: to combat COVID19 by sharing my lifelong hobby, 3d-origami, to promote social distancing.
- Paint-by-pixel coloring interface implemented via **React** and **MobX State Tree**.
- User-friendly project modelling interface utilising **Three.js** for 3D rendering.

### Daily Dash – Mobile Application — Fall 2020

- Won 1st place in UBC's 2020 Software Engineering Competition against 26 teams and 100+ participants.
- Mission: to empower users across all walks of life to achieve their life goals via regular, repeated efforts.
- Dynamically rendered forms using **React Native** and **MobX State Tree.**
- Push notifications via **Google Firebase**; User authentication via **Google Authentication**.

### Machine Learning Robot Competition — Fall 2019

- Placed 4th out of 20 teams in a machine learning competition using **Robot Operating System.**
- Autonomous navigation via **OpenCV**, reinforcement learning, and image processing tools in **Python**.
- Convoluted neural network, using **Keras** and **TensorFlow**, identifies alphanumeric characters.

### Autonomous Stone-Collecting Robot — Summer 2019

- Goal: To prototype and build a tape-following, stone-collecting robot for a student competition.
- Accurate PID control algorithm via **C++** enables autonomous navigation and functionality.
- State machine programmed in **C++** prioritizes software safety, control, and performance.