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.
- Automated essential workflows using **Python**.
- Took initiative to optimize and contribute to Intel's existing **Python** libraries and APIs.
- Exposed errors by writing **Bash** tests to validate Intel's development environment.
- 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% by using **C++** to implement dynamic memory allocation and multithreading – crucial for 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
- Involvements: Dean's Honour List, Science One, Orbit: Satellite Design Team, Physics Teaching Assistant, Math Teaching Assistant

Technical Projects

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 goals.
- Core Philosophy: Small efforts everyday can accumulate to yield life changing results.
- 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.**
- Implemented autonomous navigation in the simulation using **OpenCV**, reinforcement learning, and image processing tools in **Python**.
- Trained a neural network to identify alphanumeric characters using **Keras** and **TensorFlow.**

Autonomous Stone-Collecting Robot — Summer 2019

- Prototyped and built a robot that follows tape and collects stones for a student competition.
- Implemented PID control using **C++** on an **STM32** microcontroller, resulting in accurate autonomous navigation and functionality.
- Programmed a state machine in **C++**, optimizing software safety, control, and performance.