LINA NGUYEN

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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

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 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!

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

Vancouver, BC, Canada
Jan – Apr 2019

- 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.

Education

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

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

- **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

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 2021

- Mission: to combat COVID19 by sharing my lifelong hobby, 3d-origami, promoting social distancing.
- 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 2020

- Mission: to empower users across all walks of life to achieve their life goals via regular, repeated efforts.
- 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 2019

- Mission: to program a simulated robot for a Robot Operating System machine learning competition.
- Autonomous navigation via OpenCV, reinforcement learning, and image processing tools in Python.
- Convoluted neural network, built using Keras and TensorFlow, accurately identifies alphanumeric characters.

Robot Competition – Top 3 / 15 Teams in Time Trials (Course Project, Team of 4)

Summer 2019

- Mission: 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.