LINA NGUYEN

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Education

University of British Columbia *Sept 2016 – Apr 2022 (Expected), Vancouver BC*

Engineering Physics & Computer Science, Bachelor of Applied Science GPA: 80%

- **Coursework:** Software Engineering (94%), Data Structures & Algorithms (82%), Machine Learning Competition (93%), Robot Competition (82%), Science One (enriched 1st year science; 87%), Relational Databases (In Progress)
- **Involvements:** Orbit (Satellite Design Team) Software Developer, Math & Physics TA, Orientation Leader

Work Experience

Later – Software Engineering Intern *May - Aug 2021, Vancouver BC*

Intel – Software Engineering Intern *May - Dec 2020, Vancouver BC*

- Developed a scalable telemetry query application, organizing over 5 million data entries, using **SQLite** to query a relational database, **Python** and **Flask** for the backend, and **JavaScript**, **HTML**, and **CSS** for the frontend.
- Took initiative to optimize, automate, and add to Intel's **Python** workflows, libraries, documentation, and APIs.
- Awarded over $200 via the Intel Recognition Program for quality, completeness, and detail of work.

TRIUMF – Beta-Decay Researcher & Software Developer *Jan - Apr 2019, Vancouver BC*

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

Technical Projects

3D-O (Web Application) – In Progress (Personal Project) *Winter 2021*

- 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) – 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.
- Dynamic forms via React Native, MobX State Tree; Push notifications, user authentication via Google Firebase.

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, implemented with Keras, identifies alphanumeric characters with 99% accuracy.

Robot Competition – Top 3 / 16 Teams, 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 and C++ state machine enable autonomous navigation and functionality.

Achievements

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), **Honourable Mention** nwHacks 2021 (Western Canada's Largest Hackathon; 197 teams, 776 participants), **Intel Recognition Program** ($200+)

Technical Skills

Languages: Python, JavaScript, TypeScript, C, C++, Java, React.js, React Native, HTML, CSS, SQL, LaTeX, Bash
Technologies: Git, Linux, MongoDB, Node.js, Express.js, MobX, SQLite, MySQL, OpenCV, Keras, Three.js, Android