

# Lisa Wang

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## EDUCATION

THE UNIVERSITY OF BRITISH  
COLUMBIA – FOURTH YEAR  
Expected Completion April 2023

B.A.Sc.– Electrical Engineering, Biomedical Option

## CO-OP STATUS

WORK TERMS COMPLETED 2/4  
AVAILABILITY 4-month term

## TECHNICAL SKILLS

### LANGUAGES

- C/C++
- Python
- SystemVerilog
- Verilog
- Assembly

### SOFTWARE

- |                 |                   |
|-----------------|-------------------|
| ▪ VS Code       | ▪ Quartus Prime   |
| ▪ Git/Bitbucket | ▪ ModelSim        |
| ▪ Jira          | ▪ MATLAB          |
| ▪ Vim           | ▪ SolidWorks      |
| ▪ CMake         | ▪ OnShape         |
| ▪ PlantUML      | ▪ Altium Designer |
| ▪ LaTeX         | ▪ LTSpice         |
| ▪ Office 365    | ▪ CircuitMaker    |

### HARDWARE

- Arduino
- De1-SoC
- PCB Assembly
- Green Hills Software
- Dediprog

### OPERATING SYSTEM

- Linux
- Microsoft Windows
- Mac OS

### OTHER

- Command Line Interface
- VNC
- NVMe Specification

## TECHNICAL WORK EXPERIENCE

INTEL CORPORATION – Vancouver, BC May 2020 – Dec. 2020  
Firmware Engineering Co-op – Non-Volatile Memory Solutions Group (NSG)

### V2 SANITIZE FEATURE MODULE

- Refactored firmware feature code base using a test-driven developmental approach – implemented a modular, state machine-based design and improved overall readability and usability (C/CMake).
- Validated code through development of comprehensive unit tests utilizing Google Test – increasing unit test code coverage by 46% (C++).
- Actively collaborated in Agile software development, participated in daily stand-up meetings, groomings, retrospectives, and code-reviews (Git, Bitbucket, Jira).

### QEMU BASED TRANSPORT SIMULATOR

- Designed and implemented new blob preservation feature on drive simulation program, providing an efficient testing platform option to real drive testing by reducing firmware test duration by a factor of 6. (C/C++/JSON)
- Generated design documentation including UML diagrams of newly implemented design (PlantUML/Markdown).
- Debugged and resolved failing system level tests (Python/C).

## TECHNICAL PROJECTS

PIANO PLAYING ROBOT – UBC, Vancouver, BC Jan. 2020 – Mar. 2020  
ELEC 391 (Team of 4) – Controls Member

- Programmed (C/C++) and simulated (MATLAB Simulink, SimulationX) a PID controlled 4-bar linkage robot arm to accurately play a miniature piano.
- Designed and 3D printed robot arm, gears, and mounting system (Onshape/Cura).
- Fabricated an Arduino shield containing motor driver and encoder circuits (Altium) and soldered components onto PCB shield.

AUTONOMOUS WASTE ROBOT – UBC, Vancouver, BC Sept. 2019 – Nov. 2019  
ELEC 292 (Team of 4)

- Designed and constructed a fully automated line following robot - capable of distinguishing waste by material and disposal into corresponding bins.
- Programmed robot and sensor controls on an Arduino Uno microcontroller (C).

## EXTRACURRICULARS

UBC ELECTRICAL AND COMPUTER ENGINEERING STUDENT SOCIETY  
Vancouver, BC – Vice President Student Life Aug. 2019 – Apr. 2020

- Elected by student body to coordinate several large-scale and small-scale social events – promoting undergraduate student engagement.

BIONICS ENGINEERING ANALYSIS AND RESEARCH DESIGN TEAM  
Vancouver, BC – Electrical Sub-team Member Sept. 2018 – Nov. 2019

- Designed and prototyped circuits for the GRASP arm – a low-cost robotic bionic arm (Altium Designer).
- Assembled and soldered components onto custom PCB boards.