Lisa Li

4th year Electrical Engineering (Graduating 2020)

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EDUCATION

BASc – Electrical Engineering
University of British Columbia

Sept. 2015 – May 2020

Relevant Courses

- Computer Architecture
- VLSI
- System Software Engineering

WORK EXPERIENCE

Technical Estimating Intern
Rokstad Power

October 2016 – August 2017

- Aided in bidding 10 major projects and several minor projects over the span of 10 months and winning two multimillion-dollar projects
- Created Excel sheets with a graphical user interface (GUI) for distribution line QC that increased efficiency of QC process by 75%

Embedded Systems Intern
Landyachtz Longboard

July 2014 – September 2015

- Conducted case studies on forged metal longboard components and analyzed data in MS Excel
- Created benchmarks for manufacturer quality that resulted in 30% increase in axle strength
- Replaced mechanical sensors with electronic sensors in test equipment that decreased total time to test by 50%

STUDENT TEAMS

Electrical Team Lead
UBC Agrobot

May 2019 – Present

- Lead a team of 4 and worked in a multidisciplinary team to build an autonomous robot that selectively eliminates weeds
- Researched and designed an ongoing project of a central power distribution board

Embedded Systems Engineer
UBC Mars Colony – Sabatier Reactor

May 2019 – Present

- Researched, designed and breadboarded initial control circuit for mass flow controllers
- Designed PCB for hardware PID controller
- Currently researching and designing firmware for the central reactor

TECHNICAL PROJECTS

Verilog Testbench Parser (Python)

February 2019

- Wrote a Python script to read and parse a SystemVerilog files to create a test bench skeleton for specified SystemVerilog file
- Used Regex to parse the SystemVerilog files
- Increased efficiency and reduced minor but time-consuming bugs in resulting test benches

DNN Hardware Accelerator (SoC project)

November, 2018

- Created a hardware accelerator for a deep neutral network image processing software that resulted in a 30x speed up
- Wrote SystemVerilog a master/slave hardware description for Intel's Avalon Interconnect
- Optimized the matrix multiplication part of the DNN algorithm
- Analyzed waveforms in ModelSim to debug system and to ensure Intel's Avalon Interconnect protocol was obeyed

TECHNICAL SKILLS

Electrical Lab — Proficient in testing and validating circuits with:
- Oscilloscope
- Signal generator
- Power supply
- Multimeter
- Breadboarding

Programming Languages
- C/C++/C#
- Python
- Assembly (ARM, RISC, MIPS)
- Linux Shell Script

Hardware Design
- PCB design (Altium and Eagle)
- VLSI (Cadence)
- RTL Design (Verilog/SystemVerilog)
- ModelSim
- LTSpice

Hobbies

- Team sports
- Brazilian Jiu Jitsu
- Youth coaching