Tyler Wong
Electrical Engineering Student

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SKILLS

Elec Design	Altium, LTSpice, AC/DC circuit analysis, µcontrollers, Arduino, FPGA	*Mech Design*	Solidworks, LibreCAD, SimulationX, 3D Printing, DFA/DFM, Shop Tools
Work Software	Git/GitHub, Keil µVision, MATLAB	*Languages*	C/C++, Verilog/VHDL, Assembly

EDUCATION

University of British Columbia — **Anticipated April 2021**
Bachelors of Applied Science, Electrical Engineering
   3.2 GPA /// 80.4% Weighted Average
   Recipient of the Martin Sikes Memorial Service Award in Electrical and Computer Engineering

TECHNICAL PROJECTS

Custom Motor and Robotic Arm Assembly — **January 2020 – Current**
- Rapid (<1 week) prototyped BLDC motor using SolidWorks design, 3D printing, and machine shop equipment.
- Designed rotor/stator geometries to meet mechanical needs and external waterjet manufacturer limitations.
- Designed PLD based solution for motor driver circuit in order to meet motor driver pin constraints on Arduino.
- Coordinated with PCB manufacturer to produce driver circuit design.
- Designed 3D printed motor housing for easy assembly, usage, and debugging using DFA/DFM principles.

Coin Picker Robot — **April 2019**
- Designed and implemented motor and servo driver circuits, inductive metal detectors, and logic noise isolation.
- Documented entire stack of hardware design through hand drawn circuit diagrams and BOM.
- Introduced team of six to Git version control practices and wrote embedded C/C++ PWM control for servo motors.

Circuit Baking Oven Controller — **February 2019**
- Developed an assembly controller program to execute reflow soldering in a standard toaster oven.
- Implemented thermocouple wire analog to digital circuit for temperature instrumentation.
- Successfully reflow soldered USB EFM8s later used for practical application.

Simple RISC Machine in Verilog — **October 2018**
- Wrote and tested 16-bit processor with branch instructions, function calling, memory stack, and direct memory access, features according to given specifications.
- Created test suites and documentation in order to demonstrate processor functionality.

ADDITIONAL EXPERIENCE

Electrical and Computer Engineering Student Society, UBC — **September 2019 – Current**
VP External Affairs
- Organized trip to Silicon Valley for 30 students to visit tech companies and network with alumni.
- Managed team of volunteers to facilitate trip activities with personal ownership of transportation and catering.

Café de l'Orangerie, Vancouver, BC — **June 2016 – December 2018**
Senior Waiter and Various Additional Roles
- Adapted to multiple roles including drinks and desserts service, prep cook, line cook, and waitstaff.
- Resolved interpersonal issues among staff members to restore productive work environment.