ubc science co-op
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JED YEO

Engineering Physics Student

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WORK EXPERIENCE

Electrical & Controls Co-op

Dynamic Attractions

May 2019 – Aug 2019 Port Coquitlam, B.C.

- Development of an HMI (Human Machine Interface) to aid in safety testing as well as expedite the QA stage
- Utilized Excel and Autodesk Vault to organize documentation and records
- Conducted and monitored FAT (Factory Acceptance Testing) of high voltage prototype ride systems to ensure the project met international safety standards
- Troubleshooting IP and network issues to establish data transfer and communication for multiple projects

PROJECTS

UBC Concrete Toboggan – Electrical Sub-Team

Multiple Projects September 2017 – Present

- **Color Organ Circuit** – Takes an audio input and outputs varying signals to LEDs to simulate an RGB equalizer, with the intention of accompanying the toboggan model at a showcase
- **Wireless Bluetooth Communication** - Helped implement Bluetooth communication between two Arduino modules in order to record important strain and stress data in the toboggan

Coin Collecting Robot

Design Course Project March 2019

- In a team of 6, built and programmed within 3 weeks a fully autonomous robot to collect coins within a defined area
- Responsible for implementing wireless Bluetooth communication which recorded number of coins picked up
- Using Python scripting, plotted data in an Excel file and imported it for email and phone notifications
- Integrated the system with complex circuitry such as transistors, inductors, and capacitors

Reflow Oven Controller

Design Course Project February 2019

- Over the course of 3 weeks, collaborated within a group of 6 to design and build a reflow soldering oven controller capable of producing microprocessors for future lab use
- Programmed a graphing module in Python to plot and store important oven data such as temperature and current reflow stage
- Implemented the Python scripting module which enabled email and phone notifications regarding product status and details

Interests & Hobbies

Snowboarding, Hockey, Chess, Video Games, Live Concerts, Technology, Making Friends, Learning New Things, Food

EDUCATION

BASc, Engineering Physics

University of British Columbia

Sept 2017 – Present

- Expected Graduation – May 2023
- Available for **4 months** starting January 2020

SKILLS

Programming

Java | C | Assembly | Verilog | Arduino | MATLAB | Python | Makefiles

Electrical

Circuit Design & Analysis | Soldering | Digital Logic Design | Multimeter | Oscilloscope

Software

Git | Visual Studio | Quartus | ModelSim | Word | Excel | Powerpoint | Overleaf | HMI Programming

COURSEWORK

- Principles of Software Construction
- Introduction to Microcomputers
- Circuit Design & Analysis
- Signals and Systems
- Data Structures and Algorithms in C
- Experimental Laboratory Techniques