JED YEO

ubc science co-op
T: 604.822.9677 | F: 604.822.9676 | science.coop@ubc.ca | www.sciencecoop.ubc.ca

Engineering Physics Student

@ jed324@gmail.com https://jedyeo.com https://linkedin.com/in/jedyeo/ https://github.com/jedyeo

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 process of a high voltage ride systems
- Utilized Excel and Autodesk Vault to organize documentation and records of the testing sequences
- Conducted and monitored FAT (Factory Acceptance Testing) of 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

Graph Datatype Project

Course Project October 2019

- Designed a graph datatype in Java to represent the traversal of planets in a fictional universe
- Implemented Djikstra's algorithm in combination with breadth-first search to find the shortest path between any two planets
- Engineered a spanning algorithm to maximize score received from visiting weighted vertices in the weighted graph
- In following test-driven development practices, achieved 95% line and branch test coverage using JUnit to test our implementation of the datatype

Soundwave Datatype Project

Design Course Project October 2019

- Implemented a soundwave datatype in Java to parse and analyze MP3 files and stream it to stereo speakers
- Designed a discrete Fourier transform algorithm to map audio waveforms to frequency domain
- Created an algorithm that computed a similarity coefficient that represented the similarity between two audio clips
- Followed a structured test strategy and achieved 95% line coverage

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
- Gained experience programming the ARM-based STM32 microprocessor and integrating it in a complex system with transistors, inductors, and capacitors
- Using Python scripting and Bluetooth communication, plotted data in an Excel file and imported it for email and phone notifications

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
- Microcomputers
- Circuit Design & Analysis
- Signals and Systems
- Data Structures and Algorithms in C
- Experimental Laboratory Techniques

INTERESTS & HOBBIES

- Snowboarding
- Hockey
- Chess
- Video Games
- Cooking
- Technology
- Building Computers
- Making Friends