Shawn Baltar

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Technical Skills

Languages	- C, C++ , Java, HTML/CSS, VHDL
Applications	- GitHub, MATLAB, LT Spice, Eagle, AutoCAD, Quartus, ModelSim
Operating Systems	- Linux, Windows

Academic Projects

ADT Class Implementation
Data Structures & Algorithms
Apr 2019

- Created a dynamic queue class template in C++ and implemented the functions: empty, size, push, pop
- Implemented using a linked list data structure to grow without overriding the older elements
- Used GitHub for version control

Large Data Set Decision Tree
Software Design & Analysis
Dec 2018

- Applied entropy equations to generate a decision tree from a data set
- Analyzed the code's performance using a testing tool, gcov, to determine what lines are executed and how often
- Programmed 500 lines of code using C++ in Linux

FPGA House Alarm
Fundamentals of Digital Logic & Design
Jul 2018

- Implemented a finite state machine onto a FPGA board to mimic an alarm
- Learned VHDL logics and code for basic gates, counters, adders, encoders and decoders

Prototype Pill Dispenser
Engineering Science & Society
Sep 2017 – Dec 2017

- Collaborated in a group of 5 to design a dispenser to dispense the desired pill
- Modeled pills in AutoCAD to determine if the dimensions would fit in the pill dispenser
- 3D printed gears for the dispenser to align openings to choose a desired pill

Personal Projects

Website Design
Lighthouse Labs, Vancouver
Apr 2017

- Designed the web interface using HTML/CSS
- Developed a simple chat server made using jQuery, Node.js, Web Sockets, and Express

Education

Simon Fraser University
Burnaby, BC
Sept 2017– Sept 2021

- Bachelor of Applied Science in Computer Engineering