Reginald Pollock

Software and Electrical Engineer

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SKILLS

- Programming Languages: Python, C, HTML, CSS, Javascript, C++, Assembly, VHDL, C#.
- CS fundamentals such as algorithms and data structures.
- Version Control: GitHub and Apache Subversion.
- Writing and testing code to specification in an Agile environment.
- Field-programmable gate arrays and hardware description languages.
- Test driven development, QA and writing documentation.
- Experience with CAD programs.
- Skilled at modeling circuits using breadboards and components and testing using equipment.
- Experience with cloud hosting services such as AWS and Apache server software.

EDUCATION

British Columbia Institute of Technology - *Attending Part-Time*

Computer Science Technology: software and full-stack web development.

University of British Columbia - *Bachelor of Applied Science*

Electrical and Computer Engineering: software design, embedded microcomputer systems design, circuit design, telecommunications, electrical power and computer networking.

EXPERIENCE

Attack Drywall - *Drywaller/Assistant to Manager*

Summer 2008 - Present

- Installing and finishing drywall in residential and commercial settings.
- Accurately managing, writing and sending quotes and invoices to ensure payment.

BC Assessments - *Property Information Collector*

June 2015 - September 2016

- Ensuring assessments in British Columbia are accurate across the province as a team
- Updating database with changes made to properties and improved sketches using CAD software.

Technical Projects

Boltz - *IOS/Android mobile application*

- Led design and development and managed small team.
- Educational energy conservation application.
- Combines a dodge and collect game with a quiz and the Neurio API.
- In-game currency to purchase multiple upgrades and single game boosts.
- Developed in C# using the cross-platform real-time engine Unity.
- Monitors home energy usage with Neurio API integration to reward conservation.
- Utilizes RESTful API and JSON parsing to connect application to Neurio servers.
- Animation techniques using sprite sheets and GUI design and development.

Discord Bot - *Automated User for popular VOIP service Discord*

- Responds to messages, custom commands as well as standard.
- Can stream youtube audio to the discord server through voice chat.
- Reads and writes to a JSON file to manage a currency system.
- Play games including Blackjack and Roulette with the currency.
- Written using the Discord.js library and Node.js.
- Incorporates multiple open-source software projects to function.
- Hosted on a Raspberry Pi 2 running Raspbian OS.

Fightstick - *Arcade style joystick powered with Arduino*

- Utilizes an Arduino Uno to receive inputs and interface with the computer.
- Running a slightly modified UnoJoy code found on GitHub.
- Requires reflashing firmware on the Arduino to communicate as a direct input controller
- Added additional wiring for LEDs for a visual representation of inputs received.

Simulated microcontroller - *Altera DE2 board running a simulated Motorola 68k*

- Motorola 68K processor from Opencores.org.
- Used to learn how CPUs interface with SRAM,DRAM, and flash memory.
- Timing analysis to ensure timing parameters adhere to requirements.
- Write and modify VHDL code to control inputs and read/write data to memory.
- Write and modify C code to test on board memory systems.