Wayne Ho

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EDUCATION

University of British Columbia   **Vancouver, BC**

Bachelor of Applied Science, Electrical Engineering   **Sept 2010 – Nov 2014**

PROJECTS

Exercise Selector   **Jun 2016**

- Developed a web app using React and Redux that allows users to select a muscle group from the human muscle diagram and then displays a collection of exercises
- Implemented server rendering to fetch data from the API server and reduce the initial load time
- Created test cases using Mocha.js and Expect.js to ensure proper functionality

Strength Training Program Generator   **Nov 2015**

- Developed a responsive single-page web app with user authentication using the MEAN stack (MongoDB, Express.js, Angular.js, Node.js) and Bootstrap
- Implemented a secured REST API for retrieval of users' statistics in JSON format

Open Movie Database Loader   **Sept 2015**

- Used jQuery to develop a responsive web app to make AJAX requests to the Open Movie Database API
- Movies are continuously loaded as you scroll to the bottom of the page and additional information is retrieved when clicked

Microcontroller Hand-held Game Design   **Jun 2015**

- Designed a hand-held game in C using an ARM 32-bit microcontroller
- Developed peripheral drivers to interface LCD, joystick, audio jack, EEPROM memory and analog to digital converters
- Reduced memory size by 36% by encoding the 16-bit pixel data as an index in a 8-bit color palette lookup table

Barometer with Bluetooth Capability   **Jan 2014**

- Interfaced an Arduino with a barometric pressure and temperature sensor via I^2C communication
- Implemented a two-way handshake protocol to reliably transmit altitude readings to an Android phone via Bluetooth
- Reduced power consumption by over 60% by implementing sleep states and configuring an UART interrupt to restore power to the Arduino

TECHNICAL SKILLS

Languages and Frameworks
- *Proficient*: C, JavaScript, jQuery, HTML, CSS, Bootstrap
- *Familiar*: React, Redux, MongoDB, Angular.js , Node.js, Express.js, Processing.js

Software
- GitHub, WebStorm, Webpack, Npm, Heroku

INTERESTS

- Physical Activities – Playing sports, powerlifting, hiking