Andrew Liang

Software Developer

Projects

Glide – (Java, XML, Android Studio)

July 2015 - January 2016

Mobile arcade game for Android based on glider mechanics. Practiced proper encapsulation methods to manage multi-threaded activity. Designed and implemented custom game algorithms and followed Android design guidelines. Published on the Google Play Store, achieving a 5.0 rating.

Labyrinth – (C, Tiva LaunchPad, Orbit Booster Pack)

November 2015

Maze game for the Tiva Launchpad microcontroller. Implemented Prim's algorithm in C to generate uniquely solvable mazes on an OLED screen.

C60 – (PebbleJS, jQuery, HTML, CSS, Firebase)

Hack the North, September 2015
Real-time Pebble networking app which enables users to exchange contact details with nearby users while on the go. Based on a geolocation algorithm which simulates the effects of near field communication.

Buzz In – (Python, Pygame, Makey Makey)

December 2014

Desktop app built with Python and Pygame for team trivia games, such as *Reach for the Top*. Enables game masters to detect who "buzzes in" first, using self-built, touch-based sensors for the Makey Makey microcontroller.

Honours and Awards

President's Scholarship of Distinction

University of Waterloo (May 2015) Awarded to students who have achieved an admission average of 95% or greater

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Skills

- Languages: Java, C/C++, Python, XML, HTML, CSS
- Frameworks: Android SDK, Pygame, Pebble.js
- Tools: Android Studio, Sublime Text, Terminal, Git, WordPress, Sketch
- Other: Object-oriented programming, Android design patterns, MVC architecture, UX design

Experience

Technical Editor, Webmaster

Molecular Physiology

December 2015 - Present

- Improve and maintain layout for <u>molphysiology.com</u>, a medical news journal, using HTML, CSS, and WordPress
- Collaborate with founders in making design decisions which promote a user-friendly experience

Lifeguard, Swim Instructor

YMCA of Greater Toronto

September 2013 - August 2015

- Gained teamwork and communication skills from working in a lifeguard team
- Developed sense of time management and initiative from creating lesson plans and submitting reports

Education

University of Waterloo (Waterloo, ON)

Bachelor of Software Engineering (BSE), 2015 - 2020

Interests and Activities

- Attending hackathons, solving puzzles (Sudoku, crosswords)
- Acoustic guitar, ultimate frisbee, barbering