Andrew Liang

Software Developer

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Projects

Glide – (Java, XML, Android Studio)

July 2015 – January 2016

Mobile arcade game for Android based on glider mechanics. Designed and implemented custom vector collision and player movement algorithms. Managed Activity lifecycles and practiced proper Android design guidelines

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

November 2015

Maze game for the Orbit Booster Pack. Implemented Prim's algorithm in C to generate uniquely solvable mazes.

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

Hack the North, September 2015

Real-time Pebble networking app which enables users to efficiently 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

Skills

- **Languages**: Java, C/C++, Python, XML, HTML, CSS
- **Frameworks:** Android SDK, Pygame, PebbleJS
- **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 molphysiology.com, a medical news journal, using HTML, CSS, and WordPress

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)
Candidate for Bachelor of Software Engineering (BSE), 2015 - 2020

Interests and Activities

- Attending hackathons, solving puzzles (e.g. Sudoku, crosswords)
- UX and UI design
- Classical music, opera, theatre