

AMY QIU

PROGRAMMER, GRAPHIC DESIGNER, HARDWARE HOBBYIST

+ PROJECTS

Light Painter - Hack Western

- Worked with a team of four to build a 3D long exposure light painting arm using forward kinematics
- Mainly worked on solving the inverse kinematics and built the stabilizers
- Built using three Mountain Dew cans, servos, LEDs, an arduino, and hot glue

East of Cells - Hack Western

- Worked with a partner to create a top-down shooter with a biology theme
- Created the art assets and planned the project
- Written in Lua and LOVE

Pebble Text Editor - Terrible Hacks

- Created a simple text editor app for the pebble watch
- Learnt JavaScript in four hours in order to create it

Conversation Ender

- Procedurally generates witty phrases in order to end awkward conversations
- Built using HTML/CSS and JQuery

Ascension

- Worked with a partner to build a turn-based, tile RPG with procedurally built dungeon rooms
- Includes a leveling system, items, and randomly spawning monsters
- Built in Java over the course of two months

Edge of Twilight

- Worked with a partner to build a Binding of Isaac-like rouge shooter
- Implemented AI using the A* path-finding algorithm
- Written in Python and PyGame

+ AWARDS

University of Waterloo · J. Wesley Graham National Scholarship 2015

Up to 15 awarded nationally to students with:

- Distinguished academic performance
- Distinguished results from Mathematics or Computer Science competitions from previous years
- Participation in mathematics or computer science beyond standard course requirements

Educational Computing Organization of Ontario · ECOO Computing Contest 2014

- Led an all-female team through a competition focused on solving algorithm-based computing questions

University of Waterloo · Canadian Senior Mathematics Contest 2013

- Placed 50th out of 7816 students nationally on a full-solution math contest

+ CONTACT

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📶 Lixire

+ EDUCATION

University of Waterloo

1B Honors Computer Science Co-op 2020

+ SKILLS

PROFICIENT

Java

Python

HTML/CSS

Scheme

GIMP

Photoshop

LaTeX

FAMILIAR

AJAX

JQuery

C

JavaScript

MATLAB

Git

Arduino

+ EMPLOYMENT

Great Lakes Institute for Environmental Research Lab Associate 2012 to 2014

University of Windsor

Prepared and ran samples by:

- Extracting lipids
- Freeze-drying samples
- Loading an elemental combustion system for sample runs

Used Isodat Acquisition software to:

- Analyse carbon-nitrogen ratios

Drilled shark and sturgeon vertebrae:

- To determine growth rates during pup years

Control and Robotics Lab

Engineering Summer Intern 2014

University of Windsor

- Analysed path-optimizing programs in MATLAB
- Designed a laboratory website
- Read and discussed Ph.D. candidates' dissertations