

# AMY QIU

PROGRAMMER, GRAPHIC DESIGNER, HARDWARE HOBBYIST

## » EMPLOYMENT «

Microsoft  
**EXPLORER INTERN**  
Redmond

May 2016 to Aug 2016

- Worked on the .NET corefx team to port API tests from Xamarin
- Designed a live dashboard for API porting progress in powerBI using SQL
- Added surface area to corefx APIs
- Created internal tool filter to detect stubbed APIs in C#

Graduate Control and Robotics Lab  
**ENGINEERING SUMMER INTERN**  
University of Windsor

Jun 2014 to Aug 2014

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

## » PROJECTS «

**EAT SOCIAL : HACK THE NORTH 2016**

- Worked in a team of three to build a foodie social website that matches people to eat together
- Built in JavaScript and Angular with Firebase
- Mainly worked on the front end UI/UX

**PIPETTE AUTOMATION ROBOT : DELTAHACKS 2016**

- Worked in a team of three to build a 1D Cartesian robot that can transfer chemicals in precise amounts to sample test tubes
- Designed and built the nozzle mechanism using a dremel

**LIGHT PAINTER : HACK WESTERN 2015**

- Worked in a team of four to build a 3D light painter arm using forward kinematics for long exposure photos
- Used delta formation for robot arms for efficiency and simpler wiring
- Mainly worked on solving the inverse kinematics and built the stabilizers
- Built using eight Mountain Dew cans, servos, LEDs, an arduino, and hot glue

**PEBBLE TEXT EDITOR : TERRIBLE HACKS 2015**

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

**ASCENSION**

- Worked with a partner to build a turn-based tile RPG in Java over 2 months
- Implemented procedurally built dungeon rooms
- Includes a leveling system, items, and randomly spawning monsters

**EDGE OF TWILIGHT**

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

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## » EDUCATION «

**University of Waterloo**

2A Honors Computer Science Co-op  
2020

## » SKILLS «

PROFICIENT	FAMILIAR
Java	C
Python	JavaScript
Scheme	C#
SAI	Arduino
LaTeX	Microbit

## » AWARDS «

University of Waterloo 2015  
**J. WESLEY GRAHAM  
NATIONAL SCHOLARSHIP**

- Up to 15 awarded nationally for distinguished math and computer science performance
- Awarded the 2nd highest scholarship (\$20000 value)

University of Waterloo 2015  
**TERM DEAN'S HONOURS  
LIST**

- Awarded to students with at least a 87% term average

Educational Computing  
Organization of Ontario 2014  
**ECOO COMPUTING CONTEST**

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

University of Waterloo 2013  
**CANADIAN SENIOR  
MATHEMATICS CONTEST**

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