MAGGIE (JIAXIN) HAN

✉ maggie.han@edu.uwaterloo.ca
🌐 maggiehan.me
📞 (647)969-2166
in maggie-han
🐙 maggie-han

Skills

PROGRAMMING

Java
C++
Maple
Arduino
HTML
CSS
Javascript
VHDL

TECHNOLOGY

Eclipse
Git
Android Studio
Arduilink

Education

Computer Engineering, University of Waterloo

Summary

- Experienced (>3 years) in: Java, C++, Arduino
- Familiar (<3 years) with: HTML, CSS, JavaScript, Android Studio, Git
- Assembled robotics projects involving integration of micro-controllers and graphic user-interface
- Skilled in Maple, MATLAB, Excel data processing: such as using Fast Fourier Transform
- Highly proficient in translating and interpreting between Chinese and English
- Fast-learner through self teaching

Projects

Personal Website   2017
- Learned HTML, CSS, JavaScript (JQuery) through online resources
- Styled and designed from scratch using Github Pages

Wind Tunnel   2015 to 2016
- Designed and built small-scale wind tunnel for measuring force of lift and drag on airfoils
- Verified wind speed measurement to precision of ±0.3 m/s
- Real-time updated forces on 7-Segment display and GUI using Java and Ardulink
- GUI interface controlling Arduino for changing angle of attack and windspeed
- Coordinated construction and testing in team of five

3rd Degree Polynomial Fit   2015
- Programmed in C++ to determine the 3rd degree polynomial fit of given data set
- Solved using the method of Least-squares and Vandermonde Matrix

Life-form Simulation Game   2014
- Co-programmed interaction between 5 different elements over time in Java using Eclipse
- Object-orientated program using 11 unique classes to categorize the life-forms
- Flexible simulation depending on user inputs through Java Swing GUI

Employment

Escape Games Canada
Puzzle Engineering   Jan 2017 to Apr 2017
- Designed and built electronic puzzles for users to solve in a real-life escape game
- Programmed in Arduino to integrate hardware such as RFID readers, neopixels, etc.
- Implemented auto-calibration algorithm for an array of capacitive touch sensors
- Established communication between 3 Arduinos and 1 Raspberry Pi using I2C protocol and RF Tranceivers

Spirit of Math Schools
Assistant Teacher   2014 to 2016
- Collaborated teaching of enriched math concepts and problem solving
- Explained challenging math contest questions in small groups

Volunteering

Toronto City Youth Council · IT Admin - Deputy Clerk   2015 to 2016
- Oversaw administrative updates from over 40 youth councilors
- Refined and updated Toronto Chapter Website monthly
- Operated electronic voting device TurningPoint during council meetings
- Headed recruitment and training for spring term with over 100 applicants

Community Surf · Creative Director   2015 to 2016
- Coordinated community engagement events with over 150 participants