

SKILLS

PROGRAMMING: Java, C++, Maple, Arduino, HTML, CSS, JavaScript, VHDL

TECHNOLOGY: Eclipse, Git, Android Studio, Arduilink, IntelliJ

SUMMARY

- Experienced (>4 years) in: Java, C++, Arduino
- Familiar (<4 years) with: HTML, CSS, JavaScript, Android Studio, Git
- Assembled robotics projects involving integration of micro-controllers and Java 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

EMPLOYMENT

ROGUEWAVE SOFTWARE INC.

Software Developer

2017 to Current

- Programmed in Java to develop features in static code analysis tool
- Integrated testing in different development environments such as Linux VM

ESCAPE GAMES CANADA

Puzzle Engineering

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

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 Arduilink
- 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