



Tommy Huang

Computer Science Student
University of Waterloo

 github.com/tommyhuang-dev

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Summary of Qualifications

- Utilized Python, Java, and C++ for a variety of projects
- Created a personal website using HTML and CSS (tommyhuang.net)
- Experienced with Git, Arduino, Autodesk Inventor, and Valve Hammer Editor
- Team player: competed in multiple hackathons and group programming competitions

Projects

Shape Defense (Python, Pygame)

August 2018 – present

- Used Pygame, a module for Python, to create a game where players can build, upgrade, and construct mazes to defend themselves from enemies
- Developed from scratch pathfinding algorithms, graphical user interfaces, and functions to read and store information about maps and entities

SprayZ (Hack the North 2019) (C#, Unity)

September 2019

- Assisted in developing an app that allows the user to digitally spray-paint on real world surfaces through a smartphone camera, using augmented reality (AR)
- Incorporated Unity 3D's AR to detect walls and floors

Employee Management System (Java)

April 2018 – June 2018

- Created a program to add, edit, remove, and save employees to hash table, following object-oriented programming principles
- Designed an intuitive graphic user interface, with the ability to change the style and look of the program

Experience

(Electrical sub-team) Waterloo Rocketry Team

September 2019 – present

- Engineered a prototype that utilizes magnets and a hall effect sensor to detect if a tank is full
- Used CAN protocol to communicate between different microcontrollers (WIP)

(Head of Design) FIRST Robotics Team

September 2015 – June 2019

- 3-D Modelled and assembled intricate components of a robot using Autodesk Inventor
- Organized and subdivided tasks to the rest of the team
- Communicated with other teams to ensure models stayed up-to-date and accurate

Education

University of Waterloo Candidate for Bachelor of Computer Science (expected 2024)

1A term average: 92.4% (GPA 3.98)

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