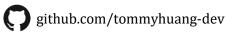
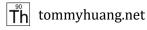
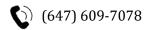
# **Tommy Huang**

1B CS Student at the University of Waterloo









## Skills and Technologies (Listed with most proficient first)

Languages: Python, Java, Scheme, C++, HTML, CSS

Technologies: Git, Arduino, Autodesk Inventor, Valve Hammer Editor, Shotcut

# **Projects**

#### **Shape Defense** (Python, Pygame)

August 2018 - present

- Utilized Pygame, a module for Python, to create a video game where players can build, upgrade, and construct mazes to defend themselves from enemies
- Learned about pathfinding algorithms, graphical user interfaces, and reading/storing information about maps and entities

SprayZ (C#, Unity) September 2019

- Helped create an app that allows the user to digitally spray-paint on real world surfaces through a smartphone camera by using Augmented Reality (AR)
- It used Unity 3D's AR to detect walls and floors

#### **Line following car** (C++, Arduino)

June 2018

- Designed a small car that used Arduino and IR sensors to follow a black line or tape
- Could navigate turns, both gradual and sudden (i.e. 90-degree intersection), as well as stop, based on the path created

# Experience

### Waterloo Rocketry Team (Member of Electrical 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)

#### **Highschool Robotics Team** (Head of Design)

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)