DANIEL WEI

Software Engineering Student at the University of Waterloo

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SKILLS

Programming Languages

Java   Python   C   C++   C#   HTML/CSS   JavaScript

Tools & Technologies

Git   MySQL   Bootstrap   jQuery   Unity

EXPERIENCE

Lead Programmer
Trubotics

📅 Sept 2019 – Jun 2020   📍 Markham, ON

- Trained members in programming and testing their robots using ROBOTC and C++
- Designed, tested and implemented programs for autonomous and driver control of robots
- Improved previous robot designs and programs that led to qualifying for VRC Provincial Championships, surpassing previous seasons' results
- Secured $4000+ in funding for the 2019-2020 season
- 125+ hours experience working with a design team of 7 people

Treasurer
Trubotics

📅 Sept 2018 – Aug 2019   📍 Markham, ON

- Secured $4000+ in funding for the 2018-2019 season
- Managed the budget for all 5 competition teams throughout the season
- Organized a fundraiser for next season funding
- 125+ hours experience working with a design team of 10 people

AWARDS

Canadian Computing Competition 2020, Senior Level

Achieved a score of 33/75, scoring in the top 10% among 2827 contestants

VEX Robotics Competition, Tournament Finalists

Placed in the top 4 out of 62 teams, qualifying for the VRC Provincial Championships

PROJECTS

Stick Hero 6

📅 Sept 2020 - Dec 2020

- Worked in a team of 5 to create a Raspberry Pi driven robot that plays the mobile game Stick Hero
- Processes images taken by an external camera using NumPy and Pillow to play the game on a touchscreen device
- Motor control done using the GPIOZero library
- Camera control done using the PiCamera library

Languages/Technologies: Python (NumPy, Pillow, GPIOZero, PiCamera), Raspberry Pi, Git

3D Parkour/FPS Hybrid Game

📅 Jul 2020 - present

- Developing a 3D Parkour and First-Person Shooter hybrid game using the Unity Engine
- Created a custom-built movement controller that allows for more advanced movement options, such as wall-running and double-jumping
- All scripts are written in C#

Languages/Technologies: Unity, C#

Portfolio Website

📅 Jul 2020 - present

- Developed a personal portfolio website from scratch using HTML, CSS, and JavaScript
- Primarily used the Bootstrap and jQuery libraries
- Ensured website has a responsive design to have it be well-formatted across any device

Languages/Technologies: HTML, CSS, JavaScript (Bootstrap, jQuery)

Cards Bot

📅 May 2020 - Sept 2020

- Created a Discord Bot in Python using the discord.py library that allows users in a Discord server to play card games (Texas Hold 'Em and President) with each other
- Object-oriented design allows multiple games to be played at once
- Uses a MySQL database for user data updating and retrieval

Languages/Technologies: Python (discord.py), MySQL

EDUCATION

University of Waterloo

📅 Sept 2020 – April 2025

Candidate for Bachelor of Software Engineering (BSE). 94.7% average, 3.98 GPA

Relevant Coursework: Programming Principles, Introduction to Methods of Software Engineering