

# DANIEL WEI

## Software Engineering Student at the University of Waterloo

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danwei002

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## SKILLS

### Programming Languages

Java Python C C++ C# HTML/CSS

JavaScript

### Tools & Technologies

React.js Git MySQL Bootstrap jQuery

Unity

## EXPERIENCE

### Lead Programmer

#### Trubotics (Competition Robotics Team)

Sept 2019 – Jun 2020 Markham, ON

- Trained **35+** members in programming and testing their robots using **C++**
- Designed, tested and implemented programs for autonomous and driver control of robots
- Leveraged **engineering design principles** to improve previous robot designs and programs
- Qualified for VRC Provincial Championships, surpassing past results
- Secured **\$4000+** in funding for the 2019-2020 season
- 125+** hours experience working with a design team of 7

### 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 that raised **\$350+** for next season funding
- 125+** hours experience working with a design team of 10

## 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

### Portfolio Website

Dec 2020 - present

- Developed a personal portfolio website from scratch using **React.js** and **Gatsby**
- Ensured website has a **responsive design** to have it be well-formatted across any device
- Used the **Bootstrap** and **jQuery** libraries to help with responsive design

Languages/Technologies: React.js, HTML, CSS, JavaScript, Bootstrap, jQuery

### Stick Hero 6

Sept 2020 - Dec 2020

- Created a **Raspberry Pi** and **Python** driven robot that plays the mobile game Stick Hero
- Worked in a team of 5 using **agile** development principles
- Processes images from an external camera using the **NumPy** and **Pillow** libraries to play the game on a mobile device
- Utilized **GPIOZero** and **PiCamera** libraries to handle motor and camera control respectively

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

### 3D Parkour/FPS Hybrid Game

Jul 2020 - present

- Developed a 3D Parkour and First-Person Shooter hybrid game using the **Unity** Engine and **C#**
- Built a custom movement controller that allows for advanced movement options, such as wall-running and double-jumping
- Included customizable keybinds, mouse sensitivity, and video settings for personalized player experience

Languages/Technologies: Unity, C#

### Cards Bot

May 2020 - Sept 2020

- Created a Discord Bot in **Python** using the discord.py library for users in a Discord server to play card games together
- Implemented **OOP** principles to allow multiple different games to be played at once without interference
- Used 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