

# DANIEL WEI

## Software Engineering Student at the University of Waterloo

@d28wei@uwaterloo.ca

647-461-3999

danwei002.github.io

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

### Stick Hero 6

Sept 2020 - Dec 2020

- Create 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 taken by an external camera using 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 experience

Languages/Technologies: Unity, C#

### Portfolio Website

Jul 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

### 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