

# Robert Wang

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## SKILLS

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**Languages** | Python, Java, HTML, CSS, C#, C/C++, JavaScript, JSX, OCaml, Assembly  
**Software & Tools** | Visual Studio Code, IntelliJ, ReactJS, GitHub, Git, Docker, Doxygen, Azure, Flask

## EDUCATION

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**Computer Science Student** at the **University of Minnesota Twin Cities (yr. 2)** – **Tech GPA: 4.0**

*Relevant Coursework:* Program Design, Data Structures and Algorithms, Linear Algebra, Software Engineering, Statistics

## PROJECTS

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### Personal Portfolio Website

Personal project | Used: ReactJS, HTML, CSS, JavaScript, Microsoft Azure

- Implemented the React library to create easily reusable components in the website
- Used React Chart JS to create well organized charts of website data
- Designed the layout and style of the website myself, and deployed to Azure Web Apps

### Task List with User Login

Personal project | Used: HTML, CSS, Python, Flask, JavaScript

- Implemented the Flask framework to handle both aspects of the front-end and back-end with Python
- Used the database class of the Flask framework to handle various user account data, allowing for each user to store their own specific and private information
- Added a security check during login and sign-up using Flask database, insuring secure accounts

### Drone Pickup System

Coursework: Final project in CSCI 3081W | Used: C++, HTML, JavaScript, Doxygen, Docker, VS Code

- Created an uber style drone pickup service with a 3d frontend map of the UMN campus, with a trip planning UI
- Built inside VS Code using C++ and implements different AI routing algorithms and design patterns
- Extended front end UI and backend for more features like data collection and energy consumption

### Unity First Person Shooter Game

Personal project | Used: Unity, Blender, C#, Visual Studio

- Created all aspects of an FPS game including player UI using the Unity game engine as a framework
- Programmed detailed item functions, player movement, and enemy AI using C# in Visual Studio
- Sculpted custom stylized 3D models for the game using the Blender modeling software

### Random Word Generator

Coursework: Final project in CSCI 1913 | Used: Java, VS Code

- Created a program that takes in large amounts of word data from the English, or any English-like language, and returns a list of generated words that completely follow the phonetic patterns of said language
- Implemented custom Java classes to create objects and data structures to perform the task efficiently

## WORK & EXTRACURRICULARS

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<b>Muon-to-Electron (Mu2e) engineer</b>	Worked to build electron detector parts in the UMN Mu2e experiment, a national physics project searching for unknown physics.	(January 2022 – March 2023)
<b>Science Olympiad</b>	Helped lead my high school SciO build team to the top 3 in the region, participating in the creation of various mechanical and digital projects.	(November 2017 – May 2021)
<b>VANTAGE business Co-op</b>	Connected with the owners of two companies as part of a high school program, and worked to manage reviews and customers on their websites and to collect new data to help their business.	(September 2019 – June 2020)