

Robert Wang

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SKILLS

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, Unity Engine

EDUCATION

Computer Science Student at the **University of Minnesota Twin Cities (yr. 3) – Tech GPA: 4.0**

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

PROJECTS

Personal Portfolio Website

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

- Implemented the React library to create easily reusable components in the website
- Created an email contact form, which allows for quick and easy communication on the website with a user
- Designed the fully responsive layout and style of the website myself, and deployed to Microsoft Azure

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 Engine, Blender 3D, 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, IntelliJ

- 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

Muon-to-Electron (Mu2e) engineer	Worked to build electron detector parts in the UMN Mu2e experiment, a national physics project searching for unknown physics.	(January 2022 – March 2023)
Tech Academy Instructor	Worked as an instructor for Tech Academy MN to organize classes and teach students of various ages STEM topics such as robotics, engineering, and programming.	(May 2023 – Current)
Science Olympiad	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)