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) – GPA: 3.9**
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: Program Design & Development **|** 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

Election Voting Processor
Coursework: Software Engineering **|** Used: **Java, Javadoc, IntelliJ**

- Created a program to store election data in custom Java objects and outputs the winner and resulting audit file
- Allows users to input multiple CSV files containing election information in IR, CPL, and popularity only elections
- Collaborated with a team to write detailed product specification documents and executed using Agile Scrum

Random Word Generator
Personal project **|** 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)*