Robert Wang

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SKILLS

Programming Languages	Python, Java, HTML, CSS, C/C++, JavaScript, SQL, OCaml, x86 Assembly
Software & Technologies	Visual Studio Code, IntelliJ, React, GitHub, Git, Docker, Doxygen, Azure, Flask

EDUCATION

B.S. in Computer Science at the **University of Minnesota Twin Cities – GPA: 3.9** *Expected May 2025*
Relevant Coursework: Data Structures and Algorithms, Program Design, Software Engineering, Statistics, AI/ML

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 with a user on the website
- 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 the data of many user accounts, allowing for each user to store their own specific and private information
- Added a security check during login and sign-up using Flask database, ensuring secure accounts

Drone Pickup Service
Coursework: Program Design & Development | Used: **C++, HTML, JavaScript, Doxygen, Docker, VS Code**

- Simulated a drone pickup service inside a 3D front-end 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 the front-end UI and back-end design to include features like data collection and energy consumption

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

- Created a program to parse election data using custom Java objects and outputs the winner and 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 such language
- Implemented custom Java classes to create objects and data structures to perform the task efficiently

WORK & EXTRACURRICULARS

Tech Academy STEM 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 – August 2023)*
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)*
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)*