Anthony Zheng

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EDUCATION

University of Minnesota Twin Cities - 3.91 GPA

Minneapolis, MN

Bachelor of Science in Computer Science

September 2022 - December 2025

Coursework: Data Structures and Algorithms, Discrete Structures, Linear Algebra, Machine Architecture and Organization, Program Design and Development, Advanced Programming Principles, Operating Systems, Intro to AI, Software Engineering, Practice of Database Systems

EXPERIENCE

Aspen Technology | R&D Intern

June - August 2024

- Implemented a tree map component to Voyager using TypeScript.
- Manipulated JSON data from Aspen Techs proprietary DBMS as well as from REST APIs to be able to be displayed on the tree map.
- Completed SWR tickets with bugs related from the front to the back end.

PROJECTS

League of Legends Data Tracker | Angular, TypeScript, Python

- Utilized Riots API to get data on individual players and their match performances.
- Developed a front-end UI using Angular and SCSS that displays the data in a concise and user-friendly way.

Multi-Threaded TCP Server | C, Git

- Implemented a multi-threaded, TCP based HTTP server capable of serving client requests concurrently
- Utilized mutexes and condition variables to implement blocking for enqueue and dequeue operations.

Expense Tracker | React, JavaScript, MongoDB

- Developed a full stack web application to streamline the organization and display of bank transaction data
- Built an API to manage and edit persistent data with MongoDB
- Implemented back-end logic using Python to read CSV files
- Designed an interactive and user-friendly UI using React

Search Algorithm Visualizer | React, JS, Git

- Visualizes how different search algorithms work on a grid with a start and end point
- Implemented feature allowing users to add barriers to create complex paths or mazes that will be searched

Drone Delivery Simulator | C++, Git, Docker, Jira, Doxygen

- Developed a drone delivery simulation that delivers packages using different search algorithms such as A*, BFS, DFS and Dijkstras.
- Implemented a new feature that allows packages to be stolen while adhering to SOLID principles and utilizing design patterns such as the factory and observer method.
- Used Jira to assign tasks and organize work in a modified SCRUM environment

Sudoku Game | HTML, CSS, JS

- Used HTML, CSS, and JS to create a dynamic sudoku puzzle interface that can be solved.
- Integrated a backtracking algorithm to generate random Sudoku puzzles as well as solve them.

SKILLS

Languages: Python, Java, JavaScript, HTML/CSS, C, C++, OCaml, SQL, TypeScript

Frameworks: React, DevExtreme, Express.js, Angular

Developer Tools: VSCode, IntelliJ, Git, Docker, Jira, Doxygen, MongoDB, Postman