

Anthony Zheng

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EDUCATION

University of Minnesota Twin Cities - 3.91 GPA

Bachelor of Science in Computer Science

Minneapolis, MN

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

Simple Working Implementation Shell | C, Docker, Git

- Developed a simple shell in C that simulates command-line interface functionality, supporting user input, process control, and command execution.
- Implemented support for file redirection, foreground and background processes and signal handling.

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.
- Includes multiple levels of difficulty along with answer-checking, allowing players to check their finished puzzle.

SKILLS

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

Frameworks: React, DevExtreme, Express.js

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