

# Daniel Mendiola

## Software Developer

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## TECHNICAL SKILLS

<b>Languages:</b>	JavaScript / TypeScript, HTML / CSS, C, C++, Java, Python, SQL, Bash
<b>Development Tools:</b>	Git / GitHub / GitLab, Neovim
<b>Frameworks:</b>	React, SvelteKit, TailwindCSS
<b>Methodologies/Paradigms:</b>	Agile, OOP

## PROJECTS

### Story planning web application • [Sidekick](#)

Actively developing a creative writing tool to dynamically map story elements and their relationships.

- Designed for local, offline-first use with IndexedDB
- In active development on [GitHub](#)

### Document-based assistant • January 2024 – December 2024

- Worked with a team to design a retrieval-augmented generation (RAG) system to deliver accurate, context-limited responses from company-uploaded documents.
- Designed and enforced role-based access across a complex tech stack using LangChain, Pinecone, Microsoft Azure, Netlify, and Heroku.

### Memory Allocator • April 2024

- Wrote a free space management and memory allocation system in C capable of splitting and coalescing, to implement and observe trade-offs between four allocation algorithms (best, worst, first, and next fit).

### Chat server • November 2023

- Collaborated with a team to develop a multithreaded socket-based chat server application.

### CPU simulator and assembler • May 2023

- Designed a Logisim CPU simulator under a custom 12-bit instruction set.
- Wrote an assembly algorithm capable of solving a problem requiring division, with instruction set arithmetic operations limited to add, subtract, and bit manipulation.
- Developed a 2-pass assembler in Java to convert custom assembly code to machine code executable by the simulator.

### Text search • November 2022

- Collaborated with a team to develop a command line application implementing a trie data structure to achieve performant search functionality over documents tens of thousands of words in size.
- Wrote unit tests with 82% code coverage, exceeding standard.

## PROFESSIONAL EXPERIENCE

### Grading Assistant • CSU Sacramento • February 2023 – May 2024

- For the course Introduction to Systems Programming in UNIX.
- Streamlined debugging process for C code in a Linux command line environment. Graded programming assignments and assist with code problems.

## EDUCATION

### California State University, Sacramento • December 2024

**B.S. in Computer Science** • Dean's Honors for 3 semesters

**Relevant coursework:** Data Structures and Algorithm Analysis, Software Engineering, Database Management Systems, Advanced Computer Organization, Object-Oriented Programming, Cryptography, Operating Systems, Game Architecture/Implementation, Web Programming

### Solano Community College • May 2022

**A.S. in Computer Science**, A.A. in English

**Relevant coursework:** Assembly Programming