

EDUCATION

University of California, San Diego

B.S. in Math - Computer Science, 3.33 GPA, 6x Provost Honors

Sep 2021 – Mar 2025

Relevant coursework:

- Data Structures and Algorithms in Java, C, C++, Assembly
- Software Engineering and Web Development (Agile/Scrum, HTML/CSS/JS fundamentals)
- Database Systems and Relational Theory (SQL, normalization, query optimization)

EXPERIENCE

Founding Engineer at Tramona

React, Next.js, PostgreSQL, AWS | [Site](#) | [LinkedIn](#)

San Diego & Remote, Oct 2023 – Dec 2024

- Led a team of 5 full-stack developers using **React**, **Next.js**, and **PostgreSQL** to create a budget short-term rentals platform from the ground up, scaling to **30,000+** properties, **20,000+** users, and **\$300k+** in gross booking volume.
- Introduced, documented, and customized a UI component library using **shadcn/ui**, **TailwindCSS**, and **Radix Primitives**, enabling a **45% reduction** in frontend code size, faster development velocity, and more consistent designs.
- Used **TypeScript**, **PostgreSQL**, **NextAuth**, and **Zod** to create a secure **REST API** and scale the backend to **250+** endpoints, and integrated **React Query** on the frontend to reduce API calls by **30%** while improving maintainability.
- Designed the PostgreSQL schema and evolved it using **expand-and-contract migrations**, scaling to **50+ tables** and **480+ columns**.
- Leveraged **Puppeteer**, **cheerio**, **residential proxies**, and **AWS Lambda functions** to scrape **30,000+** properties across **20+** websites.

PROJECTS

Volly AI (Full Stack)

React, Docker, PostgreSQL, AWS, OpenAI, OpenRouter

Mar 2025 – Present

- Designed, built, and deployed an AI chat application with offline support using **React**, **Docker**, **PostgreSQL**, **AWS Lambda**, and **AWS Fargate**, allowing for next-frame interactions and instant search across all chats, prompts, and AI responses.
- Engineered a **RAG** system that enables performant document search by incrementally computing and locally storing embeddings for prompts and responses, reducing backend load by **90%** while maintaining search accuracy.
- Leveraged **OpenRouter** to create a unified interface for **300+ AI models**, web search, prompt caching, and image analysis.

MCSR Ranked (Frontend)

Svelte, TailwindCSS, D3.js | [GitHub](#) | [Site](#)

Mar – Jun 2023, Dec 2024 – Present

- Designed and wrote copy for the landing page, and built and maintained interactive statistics pages for a Minecraft speedrunning website, scaling to **200,000+ monthly page views** and **10,000+ monthly users**.
- Migrated from a chart library to a custom **D3.js** solution to create a responsive, interactive, and performant graph to visualize up to **3 megabytes** of data, boosting render performance by **95%** and preventing freezes on lower-tier devices.
- Leveraged **IndexedDB** to create a syncing and caching system, reducing API calls by **60%** while enabling faster page loads, instant backwards/forwards navigation, and offline functionality.

donequick (Full Stack)

Svelte, Firebase, TailwindCSS, noSQL | [GitHub](#) | [Site](#)

Aug – Sep 2023

- Used **Firebase** to create a realtime lists app with optimistic updates, reordering, infinite nesting, and keyboard shortcuts.
- Used **Firebase Firestore** and **Firebase Auth** to sync user data to the cloud and enable secure list sharing & collaboration.
- Leveraged **Firebase Security Rules** to support secure list sharing and client-side database queries.

UCSD Courses (Frontend)

Svelte, Python, Web scraping | [Scraping GitHub](#) | [Site GitHub](#) | [Site](#)

Jan – Mar 2023

- Utilized **Python** and **BeautifulSoup** to scrape **179 majors** and **6,888 courses** from **82 UC San Diego** department pages.
- Wrote a Python script to parse, clean, and **interlink** the courses, and to **generate HTML pages** for each department.
- Designed and created a new course catalog website using **Svelte** and **TailwindCSS** that lets users search departments, share links to courses, and click any mention of a course to jump to its description, creating a more efficient and cohesive user experience.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, HTML, CSS, Python, Go, Java, C, C++, SQL, Bash

AI Tools & Concepts: Hugging Face, Langchain, MCP, OpenAI API, OpenRouter, Fine tuning, Vector databases, Prompt caching, RAG

Frameworks & Libraries: React, Next.js, Svelte, Vue.js, Angular, TailwindCSS, shadcn/ui, D3.js, Chart.js, Node.js, Express, Flask, FastAPI, Redux, React Query, tRPC, Zod, Prisma ORM, Drizzle ORM

Other Tools: Git, GitHub, Docker, AWS, Firebase, Vercel, Netlify, SST, VSCode, Vite, npm/yarn/pnpm, Jest, Cypress