

DAVID SANTAMARIA

github.com/Daves1245 ◇ dsantamaria1245@gmail.com ◇ davidsantamaria.com ◇ medbar.dev

WORK EXPERIENCE

ZeroEntropy (YC W25) Freelance Frontend Engineer

Wrote dashboard.zeroentropy.dev, allowing users to integrate with the API and perform top-k search across their collections *January 2025 - March 2025*

Rewrote zeroentropy.dev, focusing on SEO optimization and generating blog posts from markdown files *February 2026 - March 2026*

Google SWE Intern

May 2024 - August 2024

Intern at the Network Doctor team - detecting and diagnosing network anomalies across Google's production fleet

Implemented a data-processing pipeline in C++ to validate historical GCP telemetry data snapshots against cloud records and report anomolous activity.

VertexGraph SWE Intern

May 2022 - August 2022

Added roles workflow to users, implementing permissions management

Fixed bugs, made unit tests, and wrote documentation for the product

PROJECTS

HorizonOS

Hobby kernel targeting x86_64 with Limine bootloader, 4-level paging, dynamic page table allocation, and APIC-based interrupt routing

uACPI support, keyboard and timer drivers. Capable of playing the video game Pong

RAG Chatbot

A chatbot with RAG functionality allowing users to perform queries on unstructured data such as PDFs

Built with TypeScript, Python, and the ZeroEntropy API

Chime Chat Application & CLI tool

Full stack chat application styled after Discord to practice system design with Redis and NoSQL databases

Text over TCP/IP, file transfer implemented in UDP and custom protocol emulating QUIC for fast transfers

Home Lab

Self-hosted home lab running a personal site on Next.js and additional services

Temporary file transfer, custom wiki, self hosted github

Ternary Search

NextJS site that allows users to compete against friends in on-demand competitive programming style problems

Agentic problem ingestion pipeline can handle unstructured / unstandard contest formats from popular competitions

TECHNICAL STRENGTHS

Proficient in: C++, C, Python, Linux, Git, Bash, SQL, Javascript, Typescript

Some experience with: Java, HTML, CSS, React, Redis, Next.js, RAG,

Vector DB, Docker, NoSQL, Terraform

COMPETITIVE PROGRAMMING COMPETITIONS

ICPC Southeast Regional Contest 2022: Division 2 - 1st

AMC Stetson 2017 - 2nd

EDUCATION

University of Central Florida

January 2021 - December 2024

B.S. in Computer Science

Orlando, FL