

Siddhant Madhur

siddhantmadhur@gmail.com | linkedin.com/in/siddhant-madhur | github.com/siddhantmadhur | Fremont, CA

EDUCATION

University of California, Santa Cruz

Santa Cruz, CA

Computer Science, BS; GPA: 3.80

Sep 2023 – Jun 2027

- **Relevant Coursework:** Data Structures & Algorithms, Advanced Network Programming and Security, Embedded Operating Systems, Computer Architecture

WORK HISTORY

Google

Mountain View, CA

Software Developer Intern, Search Team

Jun 2025 – Sep 2025

- Engineered and distilled a Large Language Model to classify 10 million+ documents, reducing computational overhead while increasing cost-effectiveness for the Search team.
- Fine-tuned and evaluated classifier models like BERT using Python and TensorFlow, achieving an increase in search relevance and classification accuracy for AI Overview results.

RANDLab at UCSC | [Website](#)

Santa Cruz, CA

Undergraduate Cybersecurity Researcher

Mar 2026 – Present

- Conduct cybersecurity research under Prof. Ram Sundara Raman, focusing on the measurement, collection, and analysis of internet activity.
- Analyzed third-party script ecosystems across top 1,000 Alexa/Tranco domains over multiple geographical regions to identify pervasive tracker domains, unconsented storage access, and regional compliance anomalies.

PROJECTS

Pequod Media Server | [ReactJS](#), [Go](#), [SQLite](#), [FFmpeg](#) | [GitHub](#)

- Architected a self-hosted, open-source media server in Go (designed as a modern alternative to Plex), utilizing the Echo HTTP framework and SQLite to robustly manage personal media libraries.
- Engineered adaptive HLS streaming and on-the-fly video transcoding by integrating FFmpeg, implementing dynamic seeking, segment tracking, and Direct Play to optimize client playback.
- Designed a RESTful API featuring secure, per-device JWT authentication (with bcrypt) and automated metadata synchronization via the TMDB API to parse and organize hierarchical media content.

Mercury Game Engine | [C++](#), [D3D11](#) | [GitHub](#)

- Developed a custom, high-performance 3D game engine for Windows from scratch utilizing C++ and the Direct3D 11 graphics API.
- Implemented a custom math library for linear algebra, integrated multi-threading for concurrent operations, and applied advanced optimization techniques to maximize frame rates and memory efficiency.

LEADERSHIP & EXTRACURRICULARS

Google Developer Groups on Campus

Santa Cruz, CA

Instruction Lead

Apr 2024 – Jun 2026

- Directed an instructional team of 6 members to design, coordinate, and execute technical workshops, teaching modern Computer Science technologies to 50+ undergraduate students over 2-3 workshops a week.
- Facilitated hands-on coding sessions throughout the academic year, significantly increasing student engagement and technical proficiency within the campus developer community.

TECHNICAL SKILLS

Programming Languages: C++, Python, Go, JavaScript/TypeScript, SQL

Frameworks & Libraries: ReactJS, TensorFlow, Direct3D 11 (D3D11), Artificial Intelligence, Machine Learning

Developer Tools: Git, PostgreSQL, Google Colab, FFmpeg, Linux