

Sahil Sinha

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EDUCATION

B.S. Computer Science

Arizona State University, Tempe, AZ

May 2026

4.00 GPA

PROFESSIONAL EXPERIENCE

Backend Developer

Aug 2025 – Present

Sport Sitters (Capstone)

Tempe, AZ

- Successfully migrated 1,200+ data entities (users, bookings, transactions, and reviews) to a new environment by engineering a custom migration script that re-validated addresses via Geocodio API and utilized caching to minimize Firestore read/write costs
- Maintained 100% operational uptime for administrative workflows by designing a thin compatibility layer to bridge the legacy admin panel with the updated NoSQL data model.

Applications Intern

Jun 2025 – Jul 2025

Capgemini America

Philadelphia, PA

- Created a RAG architecture for a food delivery chatbot, integrating LLM and embedding models, a vector database, and serverless compute to enable contextual retrieval with real-time order data access, improving customer experience as part of a case study
- Produced technical coaching materials for 8+ development teams, improving agile adoption and enhanced sprint progress visibility by resolving tracking inconsistencies and boosting report accuracy

Teaching Assistant

Jan 2024 – Dec 2025

Arizona State University

Tempe, AZ

- Led labs for 70+ students, teaching programming fundamentals in Linux, C, and C++, including memory management and data structures.
- Mentored 200+ students on debugging and best practices, improving code quality and problem-solving skills.

PROJECTS

mpac | CLI utility for tracking and updating multiple git repositories concurrently

[github/sayhilel/mpac](#)

- Developed a Rust-based CLI tool to batch-update git repositories asynchronously, streamlining workflows with a single-command interface built using Clap
- Optimized update performance by executing concurrent fetch and pull operations with Tokio, reducing overall sync time by up to 70%

say-hi | Personal website designed in the style of a terminal emulator interface

[github/sayhilel/say-hi](#)

- Containerized and deployed personal portfolio website using Docker on Google Cloud Run; later migrated infrastructure to Heroku for simplified CI/CD and 64% reduction in monthly costs
- Reduced page load times to under 200ms by implementing server-side rendering with HTMX and AJAX
- Simplified content updates by implementing a TOML-driven structure for adding projects without changing backend code

verbalist | VSCode extension enabling voice controlled Vim style text editing

[github/sayhilel/verbalist](#)

- Implemented Python backend to convert speech to editor commands using Whisper(Transformer) and Llama3(LLM) via Groq API, resulting in 1.8s average CPU execution time
- Integrated custom prompt engineering to convert transcribed speech into valid, structured commands for the VSCode extensions API

TECHNICAL SKILLS

Languages: C, C++, Python, Bash, Go, Rust, SQL, Java

Libraries & Frameworks: PyTorch, Numpy, Tokio, Clap, HTMX, Sounddevice

Tools & Platforms: Git, Docker, Systemd, UNIX, CMake, Google Cloud Run, Groq Cloud, Wireshark, Metasploit

AWARDS & EXTRACURRICULARS

Dean's List: Awarded for 7 consecutive semesters for academic excellence

Devil's Invent Hackathon: 1st runner-up; awarded \$1,000 for prototyping an automated attendance system

CodePath Cybersecurity 101: Covers Access Control, Malware Analysis, and Networking