Sugam Panthi

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Education

The University of Southern Mississippi (Honors College) Hattiesburg, MS
Bachelors in Computer Science 4.0 GPA

Technical Skills

Languages: Go, Python, C/C++, C#, HTML, CSS, JavaScript
Technologies: Langgraph, ECS + Fargate, Terraform, PyTorch, Docker, Tmux, Flask, Git, Linux

Experience

Co-Founder & CTO, MagnoliaEd LLC Apr 2025 – Present

- Founded an AI-powered EdTech platform delivering personalized instructor chatbots and role-based dashboards, adopted by multiple college classrooms.
- Designed and implemented a Hybrid Monolithic architecture using Docker and Terraform with AWS fargate, enabling independent scaling of chat, analytics, and authentication services, enabling the platform to handle 1,000+ concurrent student sessions.
- Secured 27,000 in startup funding from Co-Builders: powered by Microsoft, attracted angel investors through pitch competitions, and built investor relations while managing stakeholder communications.

AI & ML Intern, Prediction 3D May 2025 – Present

- Developed predictive models using PyTorch on multi-modal construction site data, by processing images and sensor readings, resulting in improved safety and productivity insights for field teams .
- Integrated AI solutions into web applications with LangChain and Pinecone, collaborating with a 20-engineer team, enabling seamless deployment of ML features to end-users.
- Built Python-based data visualization dashboards by transforming processed datasets into actionable charts, reducing decision-making time for stakeholders by 30%.

Undergraduate Research Assistant, The University of Southern Mississippi Nov 2024 – Present

- Researched and modeled U.S. plastic waste trends using LSTM networks, cleaning and visualizing large datasets, contributing to two journal paper submissions.
- Designed a React Native recycling logistics app integrating Clerk, MongoDB, and Mapbox, enabling real-time waste transportation tracking for plantations.
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Honors and Publications

- **Pitch Competition: Winner**, Mississippi Polymer Institute May 2025
- **Hackathon: Winner**, Davidson College January 2025
- **Hackathon: Winner**, The University of Southern Mississippi November 2024
- **Research Paper:** A Comprehensive Review of Plastic Recycling in Construction Industry: Challenges and Opportunities in the U.S.

Projects

Deepseek-Go (Link)

- Lead maintainer for the most popular API client for Deepseek in Go with 300+ stars; closed 30+ issues, 15+ PRs.
- Implemented test-driven development for production, CI/CD actions with GitHub Actions, and semantic versioning.
- Developed a custom JSON extractor, token expenditure estimator, and added support for multi-round conversations.

Ripple - 3D Gamified Flashcards (Link)

- Developed a web application for creating, playing, and sharing flashcards in 3D, enhancing study experiences.
- Engineered with a Next.js frontend and Go backend, deployed on Cloud Run with Firebase for database storage.
- Utilized Turborepo for monorepo management, incorporating OCR using Tesseract, text-to-speech using OpenAI.

Cohesion - AI-Based SQL Assistant (Link)

- Developed an AI-powered open-source web application for SQL schema generation; won the hackathon.
- Engineered a custom speed-focused CSV format for mock data analysis, enhancing performance by 200%.
- Created a backend DB testing system using Go, Gin, and Docker for optimized testing and benchmarking.