

Sugam Panthi

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Research Assistant & Student Developer who loves **building with AI**; currently learning **Federated Learning** for CyberSecurity.

Education

The University of Southern Mississippi (**Honors College**)
Bachelors in Computer Science, Freshman

Hattiesburg, MS
Graduating year: 2028

Experience

- UG Research Assistant, *The University of Southern Mississippi*(Hattiesburg, MS)** **November 2024 - Present**
- Built a React Native app connecting farmers and recycling plants for efficient plastic waste transport using **Clerk**, **MongoDB**, and **Mapbox**.
 - Analyzed plastic recycling's impact on agriculture and construction, contributing to **two journal submissions** via data analysis, visualization, and LSTM-based predictive modeling.
- Tech Intern, *Best One Network*(Butwal)** **February 2024 - May 2024**
- Enhanced the payment confirmation API by transitioning from Django to FlaskWSGI framework, optimizing **processing speed by 20%** and improving **scalability by 30%**.
 - Identified, reported and solved 5 critical bugs during the testing phase, leading to a **10% reduction** in post-deployment issues.
 - Efficiently **integrated and documented** the upgraded API into the main codebase using **Git** and **Jira**.

Projects

- Cohesion - AI-Based SQL Assistant, Team, *https://github.com/saphalpdyl/Cohesion*** **November, 2024**
- Developed an AI-powered OpenSource web application for SQL schema generation, **saving 70%** of original time.
 - Designed a **custom CSV format** for mock data storage named SS-CSV, enhancing **performance by 200%**.
 - Collaborated on a SQL schema **serializer**, improving schema processing **speed by 500%**.
 - Deployed a backend schema testing system using **Go, Gin, and Docker** for optimized testing and benchmarking.
 - Pitched to over 100 industry experts at a hackathon, **winning the competition**.
- Danime - A Discord Bot, Team, *https://github.com/Danimebot/danime*** **August 2021- July 2023**
- Collaborated with 3 developers to build an OpenSource app that contains server management tools and fun commands.
 - **Verified by Discord**; 1,000,000+ users & 2,000,000+ API calls.
 - Utilized Python, Discord API, Flask, MongoDB and Git.
- Moksha - A Social App, Solo, *https://mokshaa.vercel.app/*** **Solo Project - 2023**
- A full-stack self-help platform using **React JS and Tailwind CSS** with an integrated forum using **Firebase**.
 - OpenSource and hosted on the web by using **Vercel**. Created a login system through **Google Auth** with 50+ users and 1000+ page views.
 - Focused on helping teens by motivating them through self-help guides and testimonials.
- URL Shortener, Solo, *https://github.com/Vein05/url-shortener-go*** **Solo Project - 2024**
- Developed a cross-platform dynamic URL shortener using **GO, Gin, and MongoDB**.
 - Created the front-end in HTML and JS with seamless integration with Gin.
 - Implemented a **QR** code system for the shortened URL, and made OpenSource.

Certifications & Rankings

- **Hackathon**, First Place, The University of Southern Mississippi **November, 2024**
- **Community Hours**, Student Accessibility Services: 40 hours **August-November, 2024**
- **Honors Scholar**, The University of Southern Mississippi **March, 2024**
- **Verified Discord Developer**, Discord Inc **October, 2022**

Skills & Interests

Programming Languages: Go, Python, C/C++, JavaScript (Node, React, Tailwind), HTML, CSS

Frameworks & Tools: Flask, Gin, Docker, MongoDB, Git, Linux

Hobbies: Guitarist, Reading Novels, Designing, Volunteering