Sushil Bhattarai

sushilbhattarai2004@gmail.com | +1 601-913-2352 | GitHub | LinkedIn

EDUCATION

University of Southern Mississippi   Hattiesburg, MS
Bachelor of Science in Computer Engineering, **GPA: 4.00**   *Aug. 2025 – Present*

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, C/C++, SQL (MySQL), PHP, HTML/CSS
Frameworks / Libraries: React, Next.js, Node.js, React Native, Expo
Tools / Technologies: Git, Docker, Firebase, MongoDB, Google Cloud Platform, Appwrite

EXPERIENCE

Software Engineer   Sep. 2023 – Jun. 2024
*Z1 Technologies (Z1 GPS) [**Live App**]*

- Developed a React Native mobile application using real-time data streaming via the Traccar API for continuous vehicle location updates.
- Implemented live map visualizations for streamed GPS coordinates, speed, distance, and route data.
- Integrated **Firebase Cloud Messaging** (FCM) for push notifications and remote vehicle control features in a production system used by over 10,000 users.

Undergraduate Researcher   Sep. 2025 – Present
University of Southern Mississippi   *Hattiesburg, MS*

- Developing a machine learning model to improve accuracy and consistency in clinical audiology assessments.
- Building a Python-based speech recognition pipeline to automate and standardize clinical testing workflows.

PROJECTS

E-Med Nepal — National-Level Hackathon Winner
*JavaScript, React, Node.js, MongoDB [**Live Demo**]*

- ★ Developed a full-stack centralized medical record platform enabling secure access to patient history across hospitals.

- ★ Designed a scannable digital health card system to retrieve patient records quickly and reliably.
- ★ Won first place at a national-level hackathon, selected from competing teams nationwide.

SoulLog
*TypeScript, Next.js, Node.js, MongoDB, Gemini AI, Docker [**Live Demo**]*

- ★ Built an AI-powered journaling platform that analyzes user-written text to identify emotional patterns.
- ★ Integrated Gemini AI and the YouTube Music API to provide personalized mood-based music recommendations.
- ★ Implemented user preferences, anonymous journaling, and structured storage for emotion-tagged entries.

Ragat Nepal
*React Native, PHP, MySQL, Expo [**Live App**]*

- ★ Built a real-time blood donor matching platform for emergency response scenarios currently used by over 3000 users and 6000+ downloads on Google Play.
- ★ Implemented location-based matching and notification workflows to support faster donor coordination.

Voice Pet
*React, Appwrite, APIs [**Live Demo**]*

- ★ Built a voice-controlled web application processing real-time audio input for AI-driven responses.
- ★ Integrated a custom NLP API with Appwrite to manage and store user requests securely.