

# Sushank Singh

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## Profile

Computer Science student at VIT-AP (Batch 2024) with a strong academic record (CGPA: 9.06) and solid fundamentals. Proficient in Data Structures and Algorithms, with a experience in software development and real-world applications through the projects.

Passionate about contributing technical and analytical skills to impactful projects.

## Education

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|--|-------------|
| <b>VIT-AP University — Amaravati, AP</b> | 2024 – 2028 |
| B.Tech. in Computer Science Engineering  | CGPA: 9.06  |
| <b>Kendriya Vidyalaya — Ayodhya, UP</b>  |             |
| Class X and XII Scored 91% and 86%       |             |

## Technologies

- Languages: Python, C++, Java, HTML5, CSS3
- Frameworks & Libraries: FastAPI, Flask, Scikit-learn, Pandas, NumPy
- Machine Learning: Supervised Learning, Model Training, Feature Engineering, Model Evaluation
- Tools & Technologies: Git, GitHub, REST APIs, API Integration
- Databases: MySQL, SQLite3
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Machine Learning

## Projects

### SafeMap – Safety-Aware Route Recommendation Platform

AI/ML & Backend Contributor — Hackathon Winner

- Contributed to shaping the concept of a safety-first navigation system focused on real-time hazard awareness and intelligent routing
- Built a machine learning model for emergency siren detection, enabling nearby devices to collaboratively identify and respond to approaching ambulances
- Designed and implemented backend logic to process real-time audio signals and trigger alerts for route optimization
- Developed a pothole detection API for reporting road hazards and integrating them into the safety data pipeline
- Enabled continuous data flow between detection modules and routing systems to enhance decision-making accuracy

### CareMap – Symptom-Based Health Guidance Platform

Full-Stack Developer

- Built responsive symptom input and guidance workflows to improve user interaction and accessibility
- Developed Flask REST APIs for symptom and age-based analysis with structured request-response handling
- Integrated Gemini LLM and rendered structured responses for personalized health guidance
- Designed backend logic to process user inputs and generate contextual outputs in real time
- Implemented real-time frontend-backend data flow ensuring seamless user experience and low latency

### SafeShip – AI-Driven Package Damage Detection

Backend Developer — Hackathon Winner

- Developed FFT-based sound analysis APIs for damage/tamper detection using signal processing techniques
- Built backend pipelines to process audio data and classify anomalies in package handling
- Handled backend integration of AI models, frontend, and REST APIs for end-to-end system functionality
- Designed data flow for real-time inspection and alert generation
- Processed inspection results and delivered real-time alerts to improve monitoring reliability

## Achievements

- National Level Hackathon AI/ML 1st Rank - SRM AP
- Hackathon Winner – D3 Fest, IIIT Bhubaneswar
- Hackathon Winner – THE MATRIX, VIT-AP
- CS50x (edX) – Completed: June 2025
- Solved 300+ DSA problems across platforms like LeetCode, CodeChef, and GeeksforGeeks
- Participated in 10+ competitive programming contests