Nimmaraboina Sai Kumar

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Objective

Aspiring Software Engineer with hands-on experience in full-stack development, AI/ML, and scalable system design. Skilled in building production-ready applications, automation workflows, and data-driven solutions. Seeking a role where I can contribute to intelligent, connected, and sustainable technology through innovative software engineering and effective cross-functional collaboration.

Education

Amrita Vishwa Vidyapeetham, Coimbatore, India [Sept 2022–Jul 2026]
Bachelor of Technology in Computer Science **CGPA: 6.54**

Harvest Public Secondary School, Khammam, India [Aug 2020–Apr 2022]
MPC (+1, +2) **CGPA: 8.0**

Harvest Public School (CBSE), India [Jul 2019–May 2020]
10th Grade **CGPA: 7.73**

Projects

- **A Data-Driven Approach to Predicting Rear-End Collisions Through Traffic Insights**
  Python, SUMO, LSTM, SVM, Random Forest
  - Built a machine-learning pipeline to predict rear-end collisions using simulated mobility data from SUMO.
  - Engineered mobility-based features (speed, RSSI, positional deviation) and evaluated ML models including LSTM, SVM, and Random Forest.
  - Analyzed three attack scenarios—identity fabrication, GPS spoofing, and colluding Sybil nodes—to study system robustness.

- **GenAI Legal Docs Simplifier** [GitHub]
  Python, Flask, NLP, LangChain, Docker
  - Developed a generative-AI platform to simplify complex legal documents into readable summaries while preserving citations, using NLP pipelines and prompt-engineering techniques for context-aware simplification.
  - Built a full-stack Flask application and containerized the system using Docker for scalable deployment.

- **Tourism Recommendation System** [GitHub]
  Node.js, MySQL, React.js, Express.js
  - Designed a personalized tourism recommendation platform with category-wise discovery and user profiles.
  - Integrated booking, cancellation, and review features using RESTful APIs and MySQL.

- **Rubik's Cube 3D Solver** [GitHub]
  Three.js, JavaScript
  - Developed an interactive 3D Rubik's Cube simulation supporting dynamic cube sizes (up to 100×100).
  - Implemented layer-specific movements, solving path replay, and mouse-driven rotations.

- **Customer Support AI System** [GitHub]
  Python, FastAPI, SQLite, OpenAI APIs
  - Developed an AI-powered customer support backend using FastAPI and OpenAI for intent extraction, issue summarization, and automated response generation.
  - Implemented a modular ticket-management system with SQLite and integrated automated email notifications for streamlined customer communication.

Technical Skills

- **Programming Languages:** Python, C++, C, Java, SQL, Scala, Go, Haskell
- **Web Development:** HTML5, CSS3, JavaScript, Node.js, Express.js, React.js, REST APIs
- **AI/ML Tools & Libraries:** LangChain, scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, Streamlit
- **Databases:** MySQL, SQLite
- **Tools & Platforms:** Git, GitHub, Docker, Jenkins, SonarQube

Extracurricular Activities

- **Research Presentation:** Presented paper "A Data-Driven Approach to Predicting Rear-End Collisions Through Traffic Insights." Certificate
- **NSS Coordinator:** Led and organized National Service Scheme activities promoting community engagement and student participation. Certificate
- **Competitive Coding:** Active participant in HackerRank and LeetCode contests, improving algorithmic and analytical skills.