Akkapally Sampath

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Summary

Highly motivated Full Stack Developer experienced in building scalable and user-centric applications. Strong in Python, Flask, React, SQL, and core CS fundamentals including OOP and Data Structures. Skilled at developing and optimizing REST APIs, improving backend performance, and working effectively in Agile environments. Passionate about writing clean, maintainable, and production-ready code.

Technical Skills

Languages: Python, JavaScript, Java, C, HTML, CSS
Frontend: React.js, Angular, Bootstrap, Responsive UI
Backend & APIs: Flask, REST APIs, SQLAlchemy
Databases: MySQL, SQLite
Tools: Git, Docker, CI/CD, Unit Testing, Agile
Core Concepts: OOP, DSA, SDLC, Basic System Design

Experience

AI Intern — Hexart.in   Jan 2025 – Present
- Developed and maintained Flask-based REST APIs for AI-driven platform functionalities.
- Improved backend latency by 25% through optimized SQL queries and modular backend refactoring.
- Contributed to unit testing, API documentation, and Agile sprint-based development.

Data Science Intern — Coincent   Sep 2023 – Dec 2023
- Processed and visualized large datasets (50,000+ rows) using Pandas and Matplotlib.
- Developed SQL-integrated dashboards improving analytics workflow efficiency by 30%.
- Assisted with ML model evaluation, feature engineering, and pipeline automation.

Education

B.Tech in Artificial Intelligence & Machine Learning
J. B. Institute of Engineering & Technology (JBIET)   2022–2026
CGPA: 8.64 / 10

Projects

EcoScan — Smart Waste Classification & NGO Linkage   *Python, Flask, MySQL*
- Built a machine-learning-based waste classifier achieving 92% accuracy.
- Developed REST APIs and optimized database queries, reducing backend latency by 40%.
- Designed responsive UI and automated NGO-matching workflow for waste pickup coordination.

House Price Prediction   *Python, Scikit-learn*
- Developed an end-to-end regression pipeline with engineered features and model tuning.
- Achieved R^2 score of 0.87 using regularized regression.
- Generated interpretability visualizations including diagnostics and feature importance.

CO_2 Emission Predictor   *Python, Machine Learning*
- Built predictive models to estimate vehicle CO_2 emissions.
- Applied feature encoding, normalization, and multi-model accuracy comparisons.

AI Smart Mock Interview System   *Python, Flask, React, NLP, WebRTC*
- Created a real-time AI-powered mock interview simulation system.

- Integrated WebRTC for live audio capture and speech-to-text transcript generation.
- Used transformer embeddings for semantic answer evaluation and scoring.
- Generated detailed personalized feedback reports using Flask APIs and React UI.

Certifications

- Deep Learning — NPTEL, IIT Kharagpur (2024)
- Programming in Java — NPTEL, IIT Kharagpur (2024)
- Data Science with Python — Coincent (2023)

Achievements & Leadership

- Student Club Lead — AI & Coding Club: Organized workshops, coding events, and hackathons.
- Contributed to open-source projects and institutional development initiatives.