

Rohan Sudheer

B.Tech Computer Science Engineering (AI & Robotics) – 4th Year
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Education

Vellore Institute of Technology, Chennai

2023 – 2027

B.Tech Computer Science Engineering (AI & Robotics)

CGPA: 8.48/10

Relevant Coursework: Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks, AI, Machine Learning, Computer Vision

Devagiri CMI Public School, Kozhikode

CBSE

Class XII (2023)

95.2%

Class X (2021)

96.8%

Technical Skills

- **Programming Languages:** C++, Python, Java, SQL, JavaScript, TypeScript
- **AI, Machine Learning & Computer Vision:** PyTorch, TensorFlow, Scikit-learn, OpenCV, NumPy, Pandas, YOLO, Deep Learning, Machine Learning, Computer Vision, NLP, LLM Agents, RAG (Retrieval-Augmented Generation), Prompt Engineering, OpenAI API, Vector Embeddings
- **Robotics & Embedded Systems:** ROS, Jetson Nano, Raspberry Pi, Arduino, ESP32, Pixhawk, Sensor Integration, Embedded Systems, Edge AI
- **Web & Backend Development:** HTML, CSS, React.js, Vite, Node.js, Express.js, FastAPI, REST APIs, SQLAlchemy
- **Cloud & Databases:** AWS (S3, Lambda, API Gateway, RDS), PostgreSQL, MySQL, SQLite, Neon DB, ChromaDB (Vector DB)
- **Developer Tools:** Git, GitHub, Linux, Docker, MATLAB, Jupyter Notebook, Postman, VS Code, Render, Vercel
- **Core Computer Science:** Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Database Management Systems, Computer Networks

Projects

AuduAI – AI Meeting Assistant with RAG Chatbot & Multi-Agent LLM Pipeline

- Built a full-stack AI meeting assistant that converts raw audio into speaker-diarized transcripts, structured summaries, action items, and topic segments, and lets users query the meeting in natural language.
- Engineered a multi-agent LLM pipeline (Drafter → Critic → Finalizer with GPT-4o-mini) that iteratively drafts, critiques, and refines meeting summaries against the transcript, surfacing an "AI-verified" accuracy badge in the UI.
- Designed "Ask Your Meeting," a Retrieval-Augmented Generation (RAG) chatbot using OpenAI text-embedding-3-small and ChromaDB vector search to return citation-grounded answers tied to exact speaker and timestamp.
- Implemented speaker-diarized transcription via Deepgram ASR (diarization + utterance detection) and automated extraction of action items (task, owner, deadline, priority) from natural conversational phrasing.

Automated Student Feedback Collection & AI based Sentiment Analytics Platform

- Automated the end-to-end feedback lifecycle using UiPath RPA – trigger-based bots that emailed feedback forms, collected responses, and ingested them into a structured database with zero manual intervention.
- Built an NLP-based sentiment analysis pipeline using OpenAI and Gemini APIs to surface real student concerns and emotional tone from qualitative feedback, moving beyond flat statistics to actionable insight.
- Novel Feature – UScore (Understandability Score): a custom metric evaluating students' conceptual understanding from feedback, converting unstructured NLP output into context-aware recommendations for educators.
- Designed analytics dashboards visualizing sentiment trends and learner satisfaction, translating raw feedback into prioritized action items instead of generic statistics.
- Engineered a token-efficient AI pipeline that processes only new or modified feedback using incremental updates and cached results, reducing OpenAI/Gemini API requests, token usage, and operational costs while maintaining real-time analytics.

- [Project Documentation Link](#)

AWS-Based Automated Student Attendance Platform using Face Recognition

- Designed and developed a cloud-native attendance management platform using AWS Rekognition, Lambda, API Gateway, Amazon S3, Amazon RDS, and IAM.
- Built an event-driven serverless pipeline: classroom snapshots uploaded to S3 trigger a Lambda function that calls Rekognition to match faces against an indexed student collection, writing verified results to RDS via API Gateway.
- Implemented automated attendance logging and real-time report generation behind secure REST APIs, eliminating manual attendance processes.

Achievements

Patent Published – GPS-Based Industrial Pipeline Gas Leakage Detection Robot

Application No: 202641075066

- Designed and patented an autonomous robotic system integrating GPS navigation, gas sensors, embedded controllers, and real-time monitoring software for industrial pipeline inspection and leak localization.
- Gained hands-on experience with the end-to-end patent filing process – pitching the idea and technical merit to evaluators, preparing formal documentation, and collaborating cross-functionally with mentors and teammates, strengthening communication and stakeholder-facing skills.

Certifications

[\[View Certificates\]](#)

- Oracle Cloud Infrastructure 2025 Generative AI Professional
- Google AI Professional Certificate
- Artificial Intelligence and Machine Learning in Space Exploration – Indian Space Academy