

## About Me

Computer Science undergraduate focused on artificial intelligence and machine learning, with hands-on experience in multi-agent systems, autonomous robotics, geospatial ML, and full-stack AI applications.

## Education

<b>Vellore Institute of Technology (VIT), Vellore</b>	2024–Present
B.Tech in Computer Science and Engineering, CGPA: 9.39	
<b>Indian Institute of Technology (IIT) Madras</b>	2024–Present
Bachelor of Science in Data Science and Applications, CGPA: 8.84	
<b>The Assembly of God Church School, Kolkata</b>	
ICSE: 98.8% (AIR 5, 2022) — ISC: 96% (AIR 16, 2024)	

## Experience

<b>AI Researcher, Autonomous Vehicle Research Centre, VIT</b>	Jan 2026–Present
• Developing AI-driven swarm intelligence for Crazyflie drones and UAVs.	
• Building autonomous coordination frameworks for UGV systems.	
<b>Research Intern, IIT Kharagpur</b>	2025
• Applied ML and spatio-temporal analysis on traffic accident data using Google Earth Engine.	
• Contributed to research supporting data-driven urban safety interventions.	
<b>Senior Core Member, Team Prometheus (RoboCup SSL)</b>	2025–Present
• Designed multi-agent control strategies and path planning algorithms for RoboSoccer robots.	
• Led integration and testing of vision, control, and communication modules.	
<b>Senior Core, CSI-VIT</b>	2025–Present
• Led AI-focused initiatives, workshops, and technical sessions within the student chapter.	
• Contributed to AI/ML project development and mentoring junior members.	

## Projects

### Spatio-Temporal Accident Risk Prediction

- Built ML-based predictive framework using Google Earth Engine for traffic risk analysis.
- Generated accident risk maps (2021–2023) for urban safety planning.

### KrishiMitra – AI Agricultural Assistant

- Developed AI assistant for crop planning, yield prediction, and market price forecasting.
- Implemented multilingual dashboards for accessible decision-making.

### Perspect Platform – Real-Time News Analysis

- Built NLP-based platform for real-time news bias detection and sentiment analysis.
- Integrated 66+ live sources with asynchronous processing.

### CreoSynth – Multi-Agent Content Automation Platform

- Developed CrewAI-based multi-agent system for automated content creation and brand compliance.
- Implemented workflow orchestration and real-time status tracking.

## Technical Skills

**Programming:** Python, Java, C++, SQL

**AI/ML:** Machine Learning, Deep Learning, NLP, Multi-Agent Systems, Swarm Intelligence

**Frameworks/Tools:** TensorFlow, Keras, FastAPI, Google Earth Engine, Power BI, DataBricks

**Databases:** PostgreSQL

**Developer Tools:** Git, GitHub, Google Colab

## Certifications

- Harnessing the Power of Data using Power BI – Microsoft (2024)
- Extract, Transform, and Load Process in Power BI – Microsoft (2024)
- Web Development – IBM (2025)