

Sachin Gupta

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Summary

Pre-final year MCA student at LPU with a focus on AI and computer vision. Passionate about building real-world systems from emergency detection to sign language recognition. Currently exploring opportunities in ML/AI development.

Projects

SignBridge-AI | Python, OpenCV, Mediapipe, Flask, TensorFlow, BiLSTM

Mar 2026 – Present

- Engineered a real-time gesture recognition system using MediaPipe for hand landmark extraction and TensorFlow for classification across 19 custom ISL gesture classes, with a Flask API for integration
- Achieved 90.6% classification accuracy across all 19 gesture classes; system runs live via webcam with sub-100ms response time per gesture
- GitHub: [SignBridge-AI](#)

Intelligent Emergency Response System | Python, YOLO, OpenCV, Streamlit, Twilio API, Firebase

Oct 2024 – Present

- Built a YOLOv8s-powered detection system that identifies accidents, fires, and distressed persons from live video feeds, with automated WhatsApp/SMS alerts via Twilio API and deployed on Hugging Face Spaces via Docker
- Rebuilt and refined the detection pipeline in 2025 with improved architecture and deployment
- Reduced detection-to-alert time to under 5 seconds; designed a B2B SaaS pricing model targeting Indian enterprises as a cost-effective alternative to manual surveillance
- GitHub: [IERS](#) | Live Demo: [Hugging Face](#)

Atmos | Python, Django, ArcFace, Mediapipe, DeepFace, Chart.js

Feb 2026 – Apr 2026

- Developed a face recognition attendance system with real-time anti-spoofing to prevent proxy attendance
- Integrated ArcFace for high-accuracy face embeddings and MediaPipe EAR-based liveness detection to block photo/video spoofing attacks
- Contributed across frontend and backend — Django 5.1 REST backend, role-aware templates, Chart.js attendance visualizations
- GitHub: [Atmos](#)

Certifications

Oracle AI Vector Search Certified Professional

Nov 2025

[Oracle](#)

Oracle Cloud Infrastructure 2025 Certified Data Science Professional

Oct 2025

[Oracle](#)

Oracle Cloud Infrastructure 2025 Certified Generative AI Professional

Oct 2025

[Oracle](#)

Achievements

Research paper under review: SignBridge-AI — Springer VCIBA Journal (BiLSTM + MediaPipe, 90.6% accuracy)

CodeMatrix Genesis Hackathon — Certificate of Excellence, GDG DR AITD & AITD-Events Community

Dec 2025

Samsung Innovation Campus — Python & AI/ML

May 2024

Skills

Languages: Python, C++, SQL

Technologies/Frameworks: YOLO, OpenCV, PyTorch, TensorFlow, Flask, Django, Mediapipe, Streamlit, Scikit-learn, NumPy, Pandas, MySQL, SQLite, REST API, Git, GitHub, Docker, Hugging Face, ArcFace, DeepFace

Domain Skills: Dataset Creation and Annotation, Dataset Preprocessing pipeline, Object Detection, Model Evaluation, Feature Engineering, Backend Development, API Integration, Scripting in Python & C++

Soft Skills: Problem Solving, Adaptability, Time Management, Team Collaboration, Initiator, Keen Learner

Education

Lovely Professional University

2025 – 2027

Master of Computer Applications — CGPA: 8.04

Jalandhar, Punjab

Noida International University

2022 – 2025

Bachelor of Science (Hons.) - Information Technology — CGPA: 7.7

Greater Noida, Uttar Pradesh