

Sachin Goyal

📍 Punjab, India ✉ sachingoyal9274@gmail.com 📠 6280034162 🔗 [Linkedin](#) 🌐 [Portfolio Website](#)

EDUCATION

BE/B.Tech Computer Engineering

Thapar Institute of Engineering and Technology•Patiala, Punjab•2027• CGPA 7.97

SKILLS

Programming Languages: C, C++, Python, R, Matlab

IT Constructs: DSA, OOPS, DBMS, OS, CN,Generative AI (LLMs, Prompt Engineering, RAG)

Databases: MySQL,neo4j

Tools & Platforms: VS Code, GitHub, Google Colab, AutoCAD, Hugging Face, LangChain

PROJECT

AI Chatbot & Automation Suite

Thapar Institute of Engineering And Technology•[Project](#)

- Technologies: Generative AI | Agentic AI | RAG.
- Developed agentic AI applications, including a Course Generator (roadmaps + templates) and an AI YouTube Blog Generator.
- Implemented intelligent assistants such as a Code Assistant, Math Solver, and content summarizers for YouTube videos & websites.
- Created a Database Query Chatbot enabling natural language interaction with databases without SQL knowledge.

Smart India Hackathon 2025 – Rockfall Prediction & Safety System (Ongoing)

Thapar Institute of Engineering And Technology

•Technologies: Agentic AI, IoT, Machine Learning, Python, React.

- Selected problem statement: AI-based system for predicting and mitigating rockfall incidents in open-pit mines.
- Designing a smart app with real-time risk maps, alert mechanisms (SMS/email), and incident tracking.
- Implementing IoT sensor integration (displacement, pore pressure, vibration) for proactive monitoring.
- Contributing to the Agentic AI assistant module to support miners with safety guidance and automated emergency response.
- Target outcome: cost-effective, scalable solution enhancing mine safety through predictive analytics and AI-driven decision support.

Personal AI Health Assistant

Thapar Institute of Engineering And Technology•[Project](#)

•Technologies: Python, Gradio, scikit-learn, Pandas, GeoPy, KNN, Random Forest.

- Built an ML-based Sleep Quality Predictor using Random Forest on a lifestyle dataset with custom health advice logic.
- Gained hands-on experience in full-stack AI app development, ML model integration, and health-tech prototyping.

Open-CV-Vehicle-Detection

Thapar Institute of Engineering And Technology•[Project](#)

•Technologies: Python, OpenCV, YOLOv8.

- Developed a vehicle detection and tracking application using OpenCV and a YOLOv8-based model to process video files and receive an annotated video stream highlighting detected vehicles in real-time.
- Integrated a lightweight YOLOv8 object detection model (**yolov8n.pt**) to identify and highlight vehicles within each frame efficiently, balancing accuracy and speed.
- Demonstrated skills in computer vision pipeline development and real-time object detection.

EXPERIENCE

CompetitiveProgramming & Practice

Leetcode/ Geekforgeeks

- Solved 300+ DSA problems across platforms.
- Codolio:[Sachin Goyal | Codolio](#)
- Focused on problem categories such as DP, Graph algorithms, and sorting techniques.

INVOLVEMENT

- Selected to attend Google Cloud AI Lab Series (In-person), gaining exposure to advanced Generative AI applications and industry best practices.
- Guinness World Record Holder – Participated in AICTE Python programming event (112,319 participants) and developed a Face Recognition application..