

# LAKSHITA GUPTA

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🌐 lakshita-gupta | 🔄 Lakshita018 | 🌐 Portfolio |

## EDUCATION

### Thapar Institute of Engineering and Technology

Aug 2023 - Present

*B.Tech in Computer Engineering - CGPA: 8.91*

*Patiala, Punjab*

- Relevant Coursework: Data Structures & Algorithms, Operating Systems, DBMS, Machine Learning

## PROJECTS

### HealthGuardAI - AI Healthcare Data Platform

Nov 2025

*Python, OCR, Machine Learning, JWT, REST APIs*

- Built an end-to-end AI system to extract and analyze medical data from PDFs/images using OCR and ML (batch uploads up to **10 reports**).
- Implemented JWT-based auth with **6-character alphanumeric IDs** for secure family linking, anomaly detection, AI chatbot support, and downloadable PDF reports.

### Real-Time Emotion Recognition System

Apr 2025

*Python, TensorFlow, CNN+LSTM, OpenCV*

- Developed a real-time facial emotion recognition system using CNN+LSTM to model spatial and temporal facial features.
- Trained on FER2013 achieving **72% validation accuracy**, optimized OpenCV pipelines for low-latency inference.

### TOPSIS Decision Analysis Python Package (PyPI)

Jan 2026

*Python, Pandas, CLI Tools, Packaging*

- Developed and published a Python package on PyPI implementing the TOPSIS multi-criteria decision-making algorithm.
- Provided both CLI and Python API support with CSV/Excel input handling, validation, and automated result generation.

### Constraint-Based University Datesheet Generator

May 2025

*Python, Flask, SQL*

- Designed a constraint-based scheduling engine to automatically generate **conflict-free examination timetables**.
- Processed faculty availability, student constraints, and exam rules to eliminate manual scheduling effort.

## SKILLS

**Programming Languages:** C, C++, Python, JavaScript, SQL

**Core CS:** Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks

**Problem Solving:** Solved 100+ DSA problems (arrays, trees, graphs, DP, greedy) on LeetCode

**Backend Systems:** REST APIs, Authentication (JWT), Flask, Node.js, Express.js

**Frontend:** React.js, Tailwind CSS, Responsive UI Design

**Databases:** MySQL, MongoDB, Firebase

**Machine Learning:** TensorFlow, Scikit-learn, CNNs, OpenCV, Model Training & Evaluation

**Data & Analytics:** NumPy, Pandas, Tableau

**Developer Tools:** Git, GitHub, Linux, Postman, Figma

## LEADERSHIP

### General Secretary - ISTE

May 2025 - Present

*Indian Society for Technical Education*

- Led cross-functional technical initiatives supporting 1000+ registrations and 20+ workshops across departments.

## ACHIEVEMENTS & CERTIFICATIONS

### Certifications & Academic Achievements

2024 - 2026

*Coursera, Deloitte Forage*

- Completed industry-recognized certifications in Machine Learning, Data Analytics, and Full-Stack Development (Coursera); completed Deloitte Data Analytics Job Simulation(Forage).