Medha Sharma

medha.sharma2901@gmail.com — +91-9779212137 — github.com/Medha-glitch — linkedin.com/in/medha-sharma

Profile

Final-year Computer Science student with strong foundations in data modeling, backend systems, and applied machine learning. Passionate about solving complex problems through system design and automation. Skilled in Python, SQL, and Docker, with experience in independent and team projects.

Education

B.Tech. in Computer Science, Thapar Institute of Engineering and Technology, Patiala *Expected 2026*

Projects

AI-Powered Productivity Assistant — Python, SQLite, scikit-learn

- Developed an AI-integrated productivity system combining task management, journaling, and sentiment-based recommendations.
- Trained TF-IDF + Logistic Regression model on IMDB dataset (50K samples) with **88% accuracy** and F1-score **0.88**.
- Implemented 3-way sentiment mapping and a rule-based recommender suggesting coding or wellness activities based on user mood.
- Built modular backend architecture and integrated Flask-based dashboard for daily sentiment analytics.

Highway Hypnosis Detection System (Capstone, Ongoing) — Python, OpenCV, PPG Sensor

- Developing a multi-modal driver monitoring system to detect inattention during highway driving.
- Integrated **HRV**, **eye-tracking**, and **lane drift detection** for real-time alerts.
- Designed for non-intrusive, cost-effective deployment on existing vehicles.

Commercial Operations Database (SQL) — MySQL, PL/SQL

- Built relational DB for inventory, orders, deliveries, and customer data.
- Modeled normalized schemas (3NF) with ER diagrams, triggers, and procedures.

TOPSIS Decision Tool (PyPI) — Python, NumPy

- Developed and published CLI tool for multi-criteria decision making with CSV I/O.

Sentiment Analysis on Comedy Transcripts — TextBlob

- Analyzed sentiment trends across stand-up comedy transcripts.

Experience

Machine Learning Intern, Suvidha Mahila Mandal NGO *Jun–Jul 2025*

- Built scripts for data cleaning, classification, and impact analytics.
- Tested NLP models for campaign sentiment evaluation.

Biology Teacher, Pratigya Society NGO *2022–2024*

- Taught biology to underprivileged students; created lesson plans and simplified complex topics.

Skills

Languages: Python, C/C++, R, JavaScript
ML/Tools: TensorFlow, Scikit-learn, PyTorch (basic), NumPy, OpenCV
Systems: Linux, Bash, Docker, Git, MySQL, Jupyter
Platforms: Google Colab, Raspberry Pi, Jetson Nano (basic)

Certifications

NLP Specialization, DeepLearning.AI (Coursera)

Recognitions & Activities

- Top 15% in university data science hackathon.
- Published PyPI package as part of ML coursework.
- Member of college dance team; won 2nd place in cultural meet.
- Participated in inter-college yoga tournaments.