# Vibhor Gupta

### Education

# Netaji Subhas University of Technology (NSUT)

Bachelor of Technology in Computer Science

July 2022 – May 2026 Delhi. India

#### Technical Skills

Languages: C, C++, Python, SQL, JavaScript, MySQL Technologies/Frameworks: Scikit-learn, TensorFlow, Keras Other Tools: Git, GitHub, Jupyter Notebook, Google Collab, Weka

#### Coursework

Design and Analysis of Algorithm, Database Management System, Operating System, Machine Learning, Theory of Automata, Software Engineering, Web Technology, Probability and Stochastic Processes

# **Projects**

#### Sentiment Analysis to Optimize Stock Forecasting

Python, LSTM, SciKit-Learn

- Developed a predictive model using sentiment analysis from social media, financial news, and earnings reports.
  Used FinBERT for financial sentiment scoring.
- Integrated sentiment scores with MACD, CMF, and MACD Signal to forecast stock prices using LSTM.
- Currently enhancing model for real-time processing with Reinforcement Learning techniques.

#### Movie Recommendation System

Python, MySQL, JavaScript, HTML, CSS

- Built a platform providing mood- and genre-based personalized movie suggestions with login functionality.
- Used MySQL for backend storage and Python for sentiment-based recommendation logic.

# Face Detection and Recognition

Python, TensorFlow, OpenCV, MySQL

- Designed a face detection and recognition system using a Siamese Neural Network for automating attendance.
- Achieved 98% accuracy in difficult lighting conditions; stored recognized faces in MySQL database.

# Language Detection and Topic Modelling

Python, GAT, LDA

- Built a semi-supervised model for detecting Indian languages (Hindi, Bengali, Urdu, Telugu, Gujarati) using Graph Attention Networks.
- Applied LDA to categorize large text datasets into distinct topics for better NLP applications.

#### Meme and Hateful Speech Classification

Python, Gensim, Scikit-learn, CLIP

- Built a classification system to detect harmful content in memes and textual speech using the Facebook Meme Dataset, comprising over one million labeled samples.
- Leveraged the CLIP model to extract joint visual-textual embeddings from memes, enabling more accurate classification based on contextual cues.
- Applied Gensim's LDA for topic modeling and Scikit-learn for supervised classification of harmful versus non-harmful content.
- Integrated a lightweight generative model to produce explanatory moderation messages, justifying each classification in a human-understandable format.