Harshit Gupta

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Summary

Computer Science undergraduate skilled in Python, ML, NLP, and data visualization, with strong foundations in OOP, DSA, OS, and networking. 3rd place at IIT-BHU Hackathon, 91.1% at Shell.ai, and active Kaggle competitor.

Education

Degree/Certificate	Institute/Board	CGPA/%	Year
B.Tech (CSE)	Indian Institute of Information Technology, Nagpur	7.44 (Current)	2023-Present
Senior Secondary (XII)	Emerald Heights Higher Secondary School, MP Board	86.6%	2022
Secondary (X)	Emerald Heights Higher Secondary School, MP Board	91.33%	2020

Technical Skills

Programming	**Python**, **C**/C++, SQL, Java
ML/AI	**TensorFlow**, **Scikit-learn**, PyTorch, **Transformers**, BERT, Pandas, NumPy
Data Science	**Data Analysis**, Visualization, **EDA**, **Statistical Analysis**, **Preprocessing**
Computer Vision	**CNN**, Image Classification, Data Augmentation, **Transfer Learning**
Development	**Git/GitHub**, **Jupyter**, Colab, **VS Code**, **Linux**, Kaggle
Cloud/Deployment	**Docker**, AWS/GCP, Model Deployment
Other & Web Tech	HTML/CSS/JS, **Django**, Microsoft Office

Projects

- **Sentiment, Emotion, and Summary Generation Model** *2025-2025*
  - **Objective:** Built a multi-task NLP system to analyze user comments on websites by performing sentiment analysis, emotion detection, and text summarization for extracting actionable insights.
  - **Development:** Developed a custom multi-task NLP model using a pretrained T5 transformer within a subclass. The model performed sentiment analysis and emotion detection by extracting encoder embeddings followed by dense and softmax layers, while utilizing the decoder for text summarization. Implemented task-specific logic in the call() method, along with custom training loops, loss functions, and end-to-end preprocessing pipelines.
  - **Achievements:** Achieved 80.46% accuracy on sentiment analysis and 79.98% on emotion detection. Successfully integrated T5 decoder for fluent text summarization. Secured 3rd place at the IIT-BHU Hackathon for this project.
- **Fuel Blend Properties Prediction** *2025-2025*
  - **Objective:** Developed predictive models for real-world fuel blend property estimation using component-level chemical features to enable data-driven and sustainable fuel optimization.
  - **Development:** Performed EDA and engineered domain-specific features using chemical formulas. Applied log and polynomial transformations to capture non-linear patterns. Trained multiple models including Linear Regression, TabPFNRegressor, and others using MultiOutputRegressor, and further improved matrix using VotingRegressor and StackingRegressor frameworks.
  - **Achievements:** Achieved 91.1% score on the test dataset leaderboard in the Shell.ai Hackathon hosted on HackerRank..
- **ATM Machine Simulation System** *2023-2024*
  - **Objective:** Designed and developed a robust console-based ATM simulation system in C to replicate core banking functionalities.
  - **Development:** Built a feature-rich ATM system supporting account creation, deposits, withdrawals, balance inquiries, and transaction history. Implemented secure authentication via ATM number and PIN, utilizing dynamic data structures (linked lists) for efficient data handling. Enabled file-based persistence for seamless transaction storage and retrieval across sessions.
  - **Achievements:** Delivered a high-performance ATM system with robust error handling, validated through extensive testing. Achieved seamless data persistence by auto-saving in-memory account and transaction data to files, enabling reliable reloading on system restart. Supported secure retrieval of detailed account and transaction histories, and integrated a user-friendly PIN change feature for enhanced security.

Achievements

- **3rd Place** TechneX Competition, IIT BHU *2024*
- **91.1% LeaderBoard Score** HackerRank Shell.ai Hackathon *2025*

Certifications

- **Deep Learning Specialization** Coursera/DeepLearning.AI *Certificate*
- **Machine Learning Specialization** Coursera/DeepLearning.AI *Certificate*
- **TensorFlow Developer** Coursera/DeepLearning.AI *Certificate*
- **Generative AI for Everybody** Coursera/DeepLearning.AI *Certificate*

Key Courses

Computer Science	Data Structures, Algorithms, Design and Analysis of Algorithms, OS, OOPS, Web-Developmenat
Machine Learning	Machine Learning Specialization, Deep Learning Specialization, TensorFlow Specialization,
Mathematics	Linear Algebra, Probability Statistics, Calculus, Discrete Mathematics ,NMPT