Hemant Shankar

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○ Github

in LinkedIn

Professional Summary

A recent graduate in Integrated M.S in Mathematics and Computing from NIT Agartala, with a CGPA of 8.47. Interested in data science, machine learning, and research-driven problem solving. Cleared GATE DSAI for two consecutive years. Actively seeking opportunities to apply analytical and technical skills in real-world projects. Skills: Python, MATLAB, R, SQL, TensorFlow.

Education

• **Integrated Masters of Science(MS) in Mathematics and Computing** *December 2020 - May 2025*

National Institute of Technology Agartala CGPA: **8.47**

Data Structures & Algorithms, Financial Mathematics, Artificial Intelligence, Linear and Abstract Algebra, Decision Theory and Computational Statistics, Machine Learning, Probability and Statistics

Professional Experience

• **Machine Learning Intern** *May 2023 - July 2023*

Aryabhatta Research Institute of Observational Sciences(ARIES), Nainital Onsite

- Applied and compared **5+** machine learning models for **regression and clustering** on real-world astronomical datasets, improving research insights and accuracy by over **25%**.
- Developed a modular preprocessing pipeline, reducing .Mcs file processing time by **95%**.
- Built a custom clustering model for the HEPL dataset that enabled the discovery of hidden patterns, assisting researchers in hypothesis generation and interpretation.

• **Freelance Prompt Training Associate** *Jan 2024 - October 2024*

Outlier AI Remote

- Curated and structured over **15,000+** input-output prompt pairs to enhance the performance of AI models on mathematical and computational tasks.
- Improved prompt clarity and consistency, resulting in a **15–20%** boost in model response accuracy based on internal evaluation metrics.
- Maintained version control and documentation for multiple prompt datasets, enabling updates and reproducibility.

Personal Projects

– **Weather Wizard** | Notebook Link *March 2025 – April 2025*

A Multilevel LSTM model for weather prediction

* Developed a time-series forecasting model using **Multilevel LSTM** and **TensorFlow**, achieving over **97%** prediction accuracy on structured computational datasets.
* Engineered a preprocessing pipeline to transform and scale **1,00,000+** data points, improving model training stability and reducing input variance by **30%**.
* Created visualization tools using Matplotlib to analyze predictions across 50+ time steps, enabling better interpretability and performance tracking.
* **Tech Stack**: Python, Tensorflow, Scikit-learn, Pandas, Time Series, Matplotlib, Plotly, Git

– **Fly India** | Notebook Link *April 2024 – May 2024*

Dashboard of Indian Flight Analysis

* Conducted EDA on flight data from six metro cities to uncover fare patterns and airline trends.
* Built a flight comparison tool and interactive Power BI dashboard to help users make informed travel decisions.
* Utilized Python libraries like NumPy, Pandas, Seaborn, and Matplotlib for analysis and visualization.
* **Technologies**: Python, Jupyter Notebook, PowerBI, and Git.

– **Netflix Analyzer** | Repo Link *Sep 2023 - Sep 2023*

An analysis on Netflix's Movies and Web Series

* Analyzed over **8,000** Netflix titles using SQL queries to reveal genre distribution, release trends, and content gaps.
* Created analytical dashboards for platform content strategy insights.
* Provided insights into the type and quality of Netflix content.
* **Tech Stack**: MySQL, Git.

TECHNICAL SKILLS AND INTERESTS

Programming Languages: Python, SQL, MATLAB
Framework & Libraries: PyTorch, Scikit-learn, LSTM, CNN, RNN, NumPy, Pandas, Matplotlib, Seaborn
Data Analysis & Visualization Tools: Jupyter Notebook, Power BI, Tableau, MS Excel, Plotly
Big Data Technologies: Apache Spark, Hadoop, Scala, Hive,
Databases & Storage: MySQL, PostgreSQL, Google BigQuery
Tools & Platforms: Git, GitHub, VS Code, Google Cloud Platform (GCP), Streamlit
Core Skills: Data Science, Statistical Analysis, Data Preparation, EDA, Machine Learning
Deep Learning & AI: CNN, RNN, Pytorch, LSTM, Computer Vision, NLP, Image Captioning

POSITIONS OF RESPONSIBILITY

–**Head of Operation and Strategies** | Entrepreneurship Cell, NIT Agartala   *Aug 2021 - Dec 2023*
   * Hosted more than 10 **speaker sessions**, **workshops**, and **competitions** to foster a startup ecosystem in Northeast.
   * Created a significant impact on over **5,000 people** by providing them an ecosystem for startup growth.

ACHIEVEMENT

– Cleared **GATE** DSAI **for two consecutive years 2024-2025** with **GATE Score of 519**
– **Runner-Up** position at IGNITE'21 (Startup Ideation Challenge) among 100+ participants from Northeast India.