## Hemant Shankar

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Github LinkedIn

# PROFESSIONAL SUMMARY

It appears you have not provided the current LaTeX section in the professional summary. Could you please provide that so I can assist you better?

#### **EDUCATION**

#### $\bullet$ Integrated Masters of Science (MS) in Mathematics and Computing

December 2020 - May 2025

CGPA: 8.47

National Institute of Technology Agartala

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, R, SAS, SQL, Java, C++, MATLAB (for Mathematical Programming)
- -Software and Tools: MS Office, Google Suite, LaTeX, MathWorks (for Mathematical Computation)
- -Operating Systems: Windows, Linux
- -Other Skills: Machine Learning, Data Analysis, Statistical Modeling, Mathematical Modeling, Problem Solving
- -Interests: Algebra, Calculus, Statistics, Number Theory, Cryptography

#### 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.