Mohan Krishna Gupta

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EDUCATION

Moradabad Institute of Technology   **Uttar Pradesh, India**
B.Tech, Computer Science & Engineering (G.P.A: 8.46/10)   *2019 - 2023*
- Coursework: Design and Analysis of Algorithms, Machine Learning Techniques, Data Structures

PROJECTS

Medicinal Leaf Classification
Github
- Trained an **Image Classification** model to classify 30 different medicinal leaves. Used **Image augmentation** such as Random Flip, Random Rotation and Random Zoom for better training of the model.
- Developed the UI using **Streamlit**. Used **ResNet50 V2** as the base model. Trained for 20 epochs with reduce LR on Plateau callback.
- Assessed the model performance using accuracy, confusion matrix, classification report and ROC-AUC curve. On Inference the model was **96% accurate**.

Natural Gas Price Prediction
Github
- Predicted **the Natural Gas Price from 2021 to 2026,** while leading a team in the Grand Final of SIH.
- Utilised 3 models for this **Exponential Smoothing, ARIMA and LSTM.**
- Achieved **Root Mean Squared Error of 0.45** with the ensemble of LSTM and Exponential Smoothing.

Exploratory Data Analysis
Github
- Applied Exploratory Data Analysis on datasets such as **Spotify Song Popularity**, **MS Dhoni's ODI Batting Career**, to figure out interesting facts about them.
- Extracted the data for Spotify Song Popularity using the **Spotify API,** the data consisted of various features about the tracks such as energy, tempo, valence, etc**.**
- MS Dhoni's data consisted of parameters such as grounds he played on, opponent teams he played against, runs he scored.
- For these tasks, I have used Python's Data Visualization Libraries: **Plotly**, **Matplotlib** and **Seaborn**.

SKILLS

Programming Languages: Python, C++, SQL

Tools and Databases: Jupyter Notebook, PyCharm, Vs Code, MySQL

Technical Knowledge: Machine Learning (*Linear Regression, Logistic Regression, Decision Trees, Naive-Bayes, SVM, Ensemble Methods, Clustering Algorithms, Dimensionality Reduction*), Time Series Analysis, Deep Learning, Association Rule Learning, Collaborative Filtering.

Python Libraries: Scikit-Learn, Pytorch, Tensorflow, Keras, XGBoost, CatBoost, statsmodel, Pandas, Numpy, Flask, Matplotlib, Seaborn, Plotly, Plotly's Dash, Beautiful soup.

ACHIEVEMENTS AND ACTIVITIES

- **Finalist** of National Level Hackathon **SIH 2022.**
- **Virtual Internship as Data Analyst (Forage):** Analyzed client's transaction dataset to identify customer purchasing behaviors and to identify benchmark stores.
- Achieved **AIR 322** in TCS Codevita 2022 Season 10 Round 1.
- I write blogs related to Python and Statistics on Medium with **1K+ views**.

TRAININGS AND CERTIFICATIONS

- **Deep Learning Specialization** by DeepLearning.ai (Coursera).
- **Machine Learning For All** by University of London (Coursera).
- **Data Visualization** by Kaggle