

HARSH GUPTA

hgpt999@gmail.com | +91 987 065 0985 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

SKILLS

PROGRAMMING LANGUAGES

Proficient

- Python
- Familiar
- C/C++ • MATLAB

DATABASE TECHNOLOGIES

Proficient

- SQL Server • MongoDB Server

ML LIBRARIES

Proficient

- Pandas • Scikit Learn
- Keras • Plotly • NLTK • OpenCV

VISUALIZATION TOOLS

Proficient

- Power BI • Excel
- Familiar
- Tableau • DOMO

Cloud Stack

Familiar

- AWS (machine learning services)

Web Framework

Familiar

- FASTAPI

EDUCATION

NIT HAMIRPUR, HP

MSc Math's & Computing

CGPA: 9.21 | 2022

UNIVERSITY OF DELHI

BSc MATHEMATICS (Hons)

CGPA: 8.31 | 2020

COURSE WORK

- Linear Algebra • Machine Learning
- Soft Computing • Statistics • Database Management • OOP's

ACTIVITIES

- **Qualified** GATE22 (Math's) with **921** rank.
- **Qualified** IITJAM (Math's) with **832** rank.
- Secured **2nd** Position in Inter Year Cricket Tournament(MSc)

WORK EXPERIENCE

SENIOR ANALYST @MERCADOS EMI | JUN'22- PRESENT

- Successfully automated data pipelines using python, ensuring 100% availability of critical datasets.
- Developed robust web scraping code to extract data from multiple energy sector websites using Selenium and BeautifulSoup.
- Implemented multi-processing in python to forecast all India state wise demand, leading to a 70% reduction in process execution time.
- Designed Power BI dashboard, analyzed key metrics (Peak Demand, weather, supply), and presented findings to stakeholders.
- Automated data management tasks through Python, cutting down processing time by 35%.
- Developed multiple Machine Learning models for Electricity Demand and all India Price Forecasting.

PROJECTS

Automated Load Balancing System (BIHAR) | CLIENT | JUN'23- FEB'24

- Developed algorithm script in python for the power curtailment and revival by identifying non-priority based feeder for load shedding.
- Utilizing real-time data with frequency of 30 sec., for automating power substation curtailment/revival process, thus cutting DSM costs incurred by the state.
- Performed comprehensive data checks and validated ETL, ensuring constant flow of data.

ELECTRICITY LOAD FORECASTING (REG.) | CLIENT | JUL'22- DEC'22

- Developed end-to-end electricity demand forecasting model for Maharashtra, Uttar Pradesh, Bihar and Madhya Pradesh using Gradient Boosting, improved MAPE by 2%.
- Analyzed seasonal trends, holidays, and anomalies in historical electricity demand to optimize the Energy Portfolio team's purchasing strategy.
- Delivered daily forecast analyses to senior management and stakeholders, aiding in optimal resource allocation and effective risk management.

DEEP LEARNING BASED AUTOMATED METER READING | [LINK](#) | MASTER'S THESIS | JAN'22 MAY'22

- Built a cascading model architecture for accurate object detection with a dataset of 7000+ meter images.
- Annotated 10 digits using localized cropped meter images and trained a digit detection model with YOLOv5.
- Achieved 99.7% accuracy in counter area identification and 87.8% accuracy in digit detection.
- **Published Conference Paper** on International Conference on Big Data Mining and Information Processing.

CERTIFICATIONS

- Getting Started with AWS Machine Learning: Learned basis of AWS machine learning services.
- Successfully completed the SQL for Data Science course, mastering CRUD operations in SQL.
- Completed MongoDB course, specialize in CRUD operations.
- Deployment of Machine Learning Model: End-to-End deployment using Git, CircleCI, and Railway app on Udemy.

✓ For further reference of my projects please click on portfolio