HARSHGUPTA

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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

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

POR
CORE TEAM
MEMBER | DU 2018, 2019.
Coordinated with a team of **15 Members** as a Bursar for the Conducting Mathematical Fest of **450+students**.

EXTRA CURRICULAR ACTIVITIES

• Participated in KV National Cricket Tournament.
• Secured **2nd Position** in Inter Year Cricket Tournament(MSc)

WORK EXPERIENCE

ANALYST MERCADOS ENERGY MARKET INDIA | JUN'22- PRESENT
• Utilized complex SQL queries extensively at for robust data extraction, analysis, optimization, and streamlined operations.
• Developed robust **web scraping** code to extract data from multiple energy sector websites using **Selenium and Beautiful soup.**
• Implemented parallel processing techniques, leading to a **70% reduction** in process execution time.
• Designed **Power BI report**, analyzed key **metrics** (Peak Demand, weather, supply), and presented findings to stakeholders.

PROJECTS

Bihar Load Balancing System| CLIENT |JUN'23- FEB'24
• Collaborated with authorities to understand requirements and challenges, tailoring the system to align with the unique needs of Bihar.
• Programmed Python scripts utilizing **real-time data** for automating power substation **curtailment/revival process**, thus cutting DSM costs.
• Engineered a secure backend, integrating diverse **API data** for Bihar power grid adaptability.

ELECTRICITY LOAD FORECASTING | CLIENT |JUL'22- DEC'22
• Developed and implemented electricity demand forecasting model using **Gradient Boosting**, improved accuracy by **3%.**
• Conducted detailed analysis to identify **seasonal trends, holidays** and **anomalies** inhistorical electricity demand patterns.
• **Communicated forecast results** and insights to senior management and stakeholders, including recommendations for **optimal resource allocation** and risk management.

AUTOMATED METER READING |MASTER'S THESIS |JAN'22- MAY'22
• Constructed a cascading model architecture to achieve accurate object detection using dataset of **7000+ meter images**.
• Utilized localized cropped meter images to annotate **10 digits** and trained digitdetection using **YOLOv5.**
• Achieved **99.7%** accuracy in number area identification and **87.8%** accuracy in digit detection.

CERTIFICATIONS

• **Getting Started with AWS Machine Learning**: Learned basis of AWS machine learning services.
• Successfully completed the **SQL for Data Science** course, mastering skills to extract specific data subsets, execute filtering, sorting, and summarization with SQL commands
• Completed the **MongoDB** Basics course.
• **Foundations: Data, Data, Everywhere**: For Data analysis course offered by google on coursera.