ASTHA MAURYA
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Work Experience

AI & Data Analytics Intern — Oct 2025 - Nov 2025

Edunet Foundation | *Certificate*

- Analyzed 38+ years of India's electricity generation data (1985–2023) across 8 energy sources and applied data cleaning, preprocessing, and feature standardization to build a model-ready dataset for long-term energy analysis.
- Engineered time-series forecasting models using Prophet, Linear Regression, and persistence methods to project electricity generation trends up to 2035, enabling estimation of future carbon emissions using scientific emission factors.
- Built an interactive Streamlit dashboard with 4+ sustainability KPIs and multiple Plotly visualizations, delivering insights on emission trajectories, emission intensity, renewable energy share, and energy mix trends for data-driven sustainability planning.

Data Analytics Intern — Jun 2025 - Jul 2025

REC Limited | *Certificate*

- Processed multi-state electricity demand data covering 15+ Indian states and multiple regions, performing data cleaning, preprocessing, and transformation to build a forecast-ready dataset for power consumption analysis.
- Developed AI-driven time-series forecasting models using Facebook Prophet to predict 3–12 month electricity supply trends, enabling comparison of energy requirement vs energy met and identifying demand-supply deficits.
- Designed an interactive Streamlit dashboard with authentication, forecast history tracking, and dynamic filters, visualizing energy trends, deficit patterns, forecast intervals, and KPI summaries to support data-driven energy planning.

Projects

AI Learning Platform| *Django, Python* — **Jan 2026 - Feb 2026**

- Created a full-stack AI-powered learning platform using Django, implementing user authentication, quiz sessions, and database-driven analytics to track performance across multiple aptitude topics.
- Implemented an adaptive quiz engine integrating the Groq AI API that dynamically generates questions based on user weak areas, difficulty levels, and prior performance, improving personalized learning experiences.
- Formulated a performance analytics and recommendation system using topic accuracy, response time, and consistency metrics, enabling automatic classification of topics into Strong, Moderate, and Weak categories for targeted practice.
- Github Repository Link: **https://github.com/AsthaMaurya05/AI-Learning-Platform**

India Air Pollution Analysis Dashboard | *Power BI* — **Nov 2025 - Dec 2025**

- Evaluated 1,199 air quality records from monitoring stations across Indian states and cities, performing data cleaning, transformation, and pollutant normalization using Power Query.
- Designed a multi-page interactive Power BI dashboard with 15+ visualizations and KPI indicators, enabling analysis of pollution hotspots, pollutant distribution (PM2.5, PM10, NO_2, SO_2, CO, O_3, NH_3), and state-wise severity trends.
- Integrated DAX-based measures and health-risk classification logic using pollutant average values to categorize cities into High, Moderate, and Low pollution risk zones, supporting public health awareness and environmental analysis.
- Github Repository Link: **https://github.com/AsthaMaurya05/india-air-pollution-analysis-powerbi**

Technical Skills

Languages: Python, SQL
Data Analytics: Exploratory Data Analysis (EDA), Data Cleaning, Data Visualization, Data Interpretation
Libraries & Tools: NumPy, Pandas, Matplotlib, Prophet, Plotly, Django, Power BI, Power Query, DAX
Tools & Platform: Git, GitHub, Jupyter Notebook, VS Code, SQLite
Other Skills: Problem Solving, Time Series Forecasting, Dashboard Development, Data Storytelling

Education

Lovely Professional University Punjab — **Jalandhar, Punjab**
Bachelor of Technology - Computer Science and Engineering — CGPA:7.19 — *Since 2023*