Anum Tahir

Data Analyst

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Profile

Motivated and detail-oriented Data Analyst with a strong background in Computer Science (specialization: Data Science). Eager to apply analytical, statistical, and visualization skills to extract insights and support data-driven decision-making. I am a quick learner, team collaborator, and always enthusiastic to explore new technologies to enhance business outcomes.

Summary

- Proficient in data analysis, cleaning, and wrangling using Python (Pandas, NumPy) and SQL.
- Experienced in building interactive dashboards using Power BI.
- Skilled in extracting insights from large datasets and presenting findings using charts and reports.
- Strong command over statistical methods, hypothesis testing, and predictive analytics.
- Developed and maintained ETL pipelines using Python and SQL for various projects.
- Knowledge of Excel-based reporting.
- Effective communicator, capable of translating complex data into actionable insights for stakeholders.
- Understanding of machine learning models and data science workflows.

Tech Stack

- Python (Pandas, NumPy, Matplotlib, Seaborn)
- SQL (MySQL)
- Power BI
- Microsoft Office Suite (Excel, PowerPoint, Word)
- Jupyter Notebook
- Azure Cloud
- Visual Studio
- Machine Learning
- ETL Process Automation
- Data Cleaning and Transformation
- Statistical Analysis
- Latex

Education

2020 – 2023
Lahore, Pakistan

Masters in Computer Science
Lahore University of Management Sciences (LUMS),

2016 – 2020
Lahore, Pakistan

Bachelors in Computer Science
University of Engineering & Technology Lahore (UET)

Professional Experience

05/2024 – 05/2025
Lahore, Pakistan

Data Analyst
Allied Bank Limited – Head Office

At Allied Bank, I have worked on chatbot data analysis to enhance performance across business operations. I have analyzed system data using SQL and Python, collaborated with stakeholders to define improvement goals, and supported end-to-end data solutions for intelligent automation.

- **Conducted exploratory data analysis (EDA)** and statistical analysis on chatbot logs to identify usage patterns and optimization areas.
- **Automated** data extraction, cleansing, and transformation workflows using SQL and Python (Pandas).

- **Built performance dashboards** using Power BI and Excel to visualize KPIs and user behavior.

Tools & Skills: SQL, Excel, Python, Data Visualization, Chatbot Analytics, Communication

01/2022 – 05/2022
Lahore, Pakistan

Teaching Assistant – Data Science
Lahore University of Management Sciences (LUMS)
At LUMS, I have served as a TA for Data Science courses focused on data analysis and machine learning. My role has included mentoring students, reviewing projects, and enhancing their practical exposure to real-world analytics.

- **Delivered lab sessions** on Python programming, machine learning, and data visualization.
- **Evaluated academic projects** involving regression, classification, and clustering techniques.
- **Provided guidance** on using libraries such as Scikit-learn, Matplotlib, and Seaborn for coursework.

Tools & Skills: Python, Data Visualization, Communication, ML Education

11/2020 – 06/2021
Lahore, Pakistan

Research Assistant
Energy Informatics Group – LUMS
At EIG, I have led a research project on Li-ion EV battery degradation modeling using machine learning. I have processed scientific sensor data, developed predictive models, and presented insights for academic publications.

- **Preprocessed high-frequency battery sensor data** and conducted outlier handling.
- **Built regression models** using MAE and RMSE metrics to forecast cyclic degradation.
- **Produced technical reports and plots** using LaTeX and Matplotlib for journal submission.

Tools & Skills: Python, ML Modeling, Data Cleaning, LaTeX, Battery Analytics

Projects

Smart Feature Selection for Improved Cyclic Loss Prediction of Li-ion EV Battery Degradation (US Dataset)
Research Project – Energy Informatics Group (LUMS)

- **Engineered domain-specific features** from multi-cycle battery datasets.
- **Trained and evaluated ML models** using Grid Search and cross-validation.
- **Improved model accuracy** by reducing noise through normalization and PCA.

Technologies: Python, Scikit-learn, Pandas, Matplotlib, Latex, ML

Machine Learning-Based Water Content Estimation in Trees using Sap Flow
Master's Capstone Project – LUMS

- **Analyzed real-time sensor data** to estimate moisture levels in plant tissues.
- **Applied regression algorithms** like Random Forest and SVR, and **tuned** them using Genetic Algorithms.
- **Visualized environmental dependencies** using correlation heatmaps and scatter plots.

Technologies: Python, Excel, Machine Learning, Sensor Analytics, Data Visualization

Machine Vision-Based Student Productivity Optimizer for Classroom
Bachelor's Final Year Project

- **Designed a vision-based system** using IP cameras and OpenCV to monitor student presence.
- **Implemented pattern recognition models** for attention and engagement metrics.
- **Validated the system** using confusion matrix, recall, and precision scores.

Technologies: Python, OpenCV, Statistics, Machine Vision, Report Writing

Languages

English
Full Professional Proficiency

German
A2 (Highly motivated to reach professional fluency)

Interests

- Book Reading
- Baking
- Drawing & Sketching