Muhammad Usman

Data Analyst

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PROFESSIONAL SUMMARY

Data Analyst with 8+ years of IT and telecom operations experience, using **Python, SQL, and Power BI** to turn operational and business data into reports, dashboards, and clear decisions. Analyzed **2,000+ network incidents** and built a predictive model that flags **SLA breach risk at 82% accuracy (modeled)**, identifying **$530K+ in projected annual savings (modeled)**. Backed by hands-on network operations, keeping **400+ live CIR and GPON connections** running and processing about **100 fault reports per week** across Punjab. All financial and model figures are modeled estimates (simulated data).

SKILLS

Programming: Python (Pandas, NumPy, SciPy, Scikit-learn), **SQL** (PostgreSQL, CTEs, window functions), JavaScript, TypeScript

Visualization & BI: Power BI (DAX, data modeling), **Excel** (pivot tables, advanced formulas), IBM Cognos, Tableau, Streamlit, Matplotlib, Seaborn, Plotly

Data Engineering: ETL pipelines, Apache Airflow, DuckDB, web scraping (Requests, BeautifulSoup, Selenium)

Databases: PostgreSQL, Neon, schema design, query optimization

Tools & Automation: Git, GitHub, Docker, Vercel, reproducible data cleaning pipelines

EDUCATION

MCS, Computer Science Sep 2021 - Dec 2025
Virtual University of Pakistan
Relevant Coursework: Database Systems, SQL, Python Programming, Data Structures & Algorithms, Statistics & Probability, Web Technologies

BSc Mechanical Engineering Technology 2017
University of Engineering & Technology (UET)

PROFESSIONAL EXPERIENCE

Data Analyst Aug 2025 - Present
Independent Projects · Lahore, Pakistan

- Built a **telecom fault analytics dashboard** in **Streamlit** on **2,000+ incident records**; a **Random Forest model** predicts **SLA breaches with 82% accuracy** and the analysis projects **$530K+ in annual savings** from maintenance and spare-parts actions.
- Built a **churn prediction model** at **87% AUC-ROC** with **RFM segmentation**, flagging **$2.8M+ revenue at risk** and projecting **$420K+ annual recovery** through targeted retention.
- Built **web scraping pipelines** with **Requests and BeautifulSoup** and reusable **Python data cleaning workflows** that feed all reporting dashboards.

Telecom Technician (T/Tech) 2018 - Present
National Telecommunication Corporation (NTC) · Lahore, Pakistan

- Monitor a government data network across **400+ CIR and GPON connections** throughout Punjab, handling about **100 fault reports per week**.
- Log every fault with **root cause, status, and fix details**, giving management a clear weekly picture of network health instead of raw logs.
- Analyze **incident patterns** with **Python and SQL** to flag repeat faults and priority risks, helping cut mean time to repair for **critical and VIP links**.
- Track **SLA and KPI records** for the network and follow up on service restoration until open faults are properly closed.

PROJECTS

Telecom Network Operations & Fault Reduction Dashboard
Python · Pandas · NumPy · Scikit-learn · Plotly · Streamlit

- Found **Hardware and Power faults** cause **55% of incidents** but take 3x longer to resolve; GPON drives **35% of all faults**.
- Compared fault, MTTR, and cost data showing **$2.8M+ annual downtime cost (modeled)** and **$420K+ in SLA penalties (modeled)**, with averages of **4.2 hours MTTR**.

Impact: Built a **Random Forest model at 82% accuracy** projecting **$530K+ annual savings** through spare-parts stocking (144% modeled ROI) and preventive maintenance (280% modeled ROI).

Customer Churn & Retention Analytics
Python · Pandas · Scikit-learn · SciPy · Plotly · Streamlit

- Segmented customers with **RFM analysis**: top customers (8%) generate **35% of revenue**, while a 15% at-risk segment holds **20% of revenue**.
- Compared classifiers and deployed a **Gradient Boosting churn model at 87% AUC-ROC (modeled)** in a multi-page **Streamlit dashboard**.

Impact: Identified **$2.8M+ revenue at risk**, with retention strategies projected to **recover $420K+ annually**.

GlobalRetail Data Analysis: return, shipping, and RFM analysis across **50K orders**, flagging **$2M+ profit recovery (modeled)**.

Sales & Profitability Optimization: discount and regional margin analysis revealing **$240K+ annual profit improvement (modeled)**.

Operations Backlog Dashboard: SLA compliance at 78% against a 90% target; the top 20% of agents held **45% of tickets**.

TechMart Sales Analysis: 5,000-record scan exposing **40% seasonal variance** and **3.2x regional gaps** for targeted planning.

CERTIFICATIONS

IBM Data Analyst Professional Certificate - IBM (Coursera) (2026)
Key topics: Excel, SQL, Python (Pandas), Data Visualization, Cognos Analytics, Dashboards

Data Visualization and Dashboards with Excel and Cognos - IBM (2026)

Database and SQL for Data Science with Python - IBM (2026)

Data Analysis with Python - IBM (2026)