

Mariam Rehan

Data Analyst | Python · SQL · Power BI · Tableau · Excel | Consumer Insights

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Work Experience

AiSight

Karachi, Pakistan

Insights Analyst

February 2026 - Current

- Analysed multi-dimensional consumer panel datasets across brand, city, socioeconomic, and variant dimensions using advanced Excel techniques, including pivot tables and weighted aggregations
- Developed custom performance metrics to uncover SKU mix behaviour and pricing dynamics beyond standard reporting
- Conducted brand switching decomposition analyses to differentiate competitive losses from category-level demand shifts
- Performed data integrity validation through cross-metric analysis, identifying and flagging anomalies before stakeholder presentations
- Synthesised complex consumer behaviour patterns across penetration, buying frequency, volume per buyer, and value per buyer metrics
- Designed and delivered visually compelling strategic presentations, translating complex panel data into actionable commercial insights and market-specific recommendations to director-level stakeholders

Broad Peak Lab

Karachi, Pakistan

Research Assistant

November 2025 - January 2026

- Engineered an ARIMA-based time-series model to forecast U.S. IBD-associated cancer mortality trends through 2035; findings submitted to Digestive Disease Week (DDW) 2026.
- Processed and analysed large-scale epidemiological datasets like CDC WONDER to identify geographic health disparities.
- Utilised Python for data preprocessing, statistical modelling, and visualisation of geographic trends.

Stagger Labs

Karachi, Pakistan

Full Stack AI Engineer Intern

June 2025 - October 2025

- Built a scalable PDF-to-structured-form pipeline using Python, Node.js, and OpenAI GPT-4o, extracting metadata and generating form layouts with semantic field grouping.
- Developed a continuous-output format merging multi-page forms into a unified structure with incrementally ordered rows for improved data usability.
- Orchestrated a multi-language architecture, combining Python for metadata extraction with Node.js for LLM orchestration.
- Resolved complex bugs like broken LLM outputs and directory misconfigurations.

AI Datayard

Karachi, Pakistan

Market Analyst Trainee

December 2024 - February 2025

- Designed and delivered a Power BI training session titled "Build Your First Dashboard" for women in tech, teaching data storytelling using engaging datasets and emphasising visual best practices.
- Curated accessible dashboard colour palettes and layout strategies aligned with brand identity to promote data readability and inclusion.
- Created thought-leadership content on AI, climate data, and public datasets, boosting brand credibility and data literacy engagement.
- Proposed and structured content formats around data science facts, beginner-friendly resources, and visual storytelling to support community upskilling.

10Pearls Pakistan

Karachi, Pakistan

Data Science Intern

December 2024 - February 2025

- Developed a real-time AQI forecasting engine using XGBoost, providing high-accuracy 3-day air quality predictions for environmental monitoring.
- Architected a serverless MLOps pipeline utilising Hopsworks, and GitHub Actions, to automate data ingestion, model retraining, and deployment.
- Built automated CI/CD workflows for hourly weather data scraping and processing, ensuring the model always utilises the most current environmental features.
- Deployed a centralised Streamlit dashboard, enabling stakeholders to visualise real-time trends and model performance metrics via an interactive interface.

Project Experience

Sheher Sunta Hai: Civic AI Dashboard

Replit, React, TypeScript, PostgreSQL, Leaflet, Tailwind, Node.js

- Built a full-stack civic issue reporting platform enabling Pakistani citizens to log and track complaints (roads, waste, water), visualised on an interactive map.
- Implemented a dynamic Leaflet heatmap with MapTiler and OpenStreetMap geocoding, supporting complaint filtering by category and time range.
- Designed a bilingual, mobile-friendly UI with file uploads, issue tagging, and autocomplete to simplify the reporting experience for diverse users.

People Analytics Dashboard: HR Insights

Microsoft Power BI

- Developed a one-page Power BI dashboard using the Human Resources dataset to explore employee engagement, attrition trends, performance, and diversity metrics.
- Visualised termination reasons, satisfaction scores, and hiring patterns, offering a 360° view of workforce health and productivity.
- Designed clean and actionable layouts with intuitive slicers, scorecards, and categorical breakdowns across gender, race, and departments.
- Built this project independently to upskill in HR-specific analytics after interviewing for a People Analytics intern role, demonstrating initiative, domain interest, and strategic thinking.

Data Professional Survey EDA & Dashboard

Microsoft Power BI, SQL

- Developed an interactive Power BI dashboard to analyse survey data from 630 data professionals.
- Performed extensive SQL-based data cleaning: removed duplicates, handled missing values, standardised text entries, and filtered inconsistencies for clean visualisation.
- Visualised salary benchmarks by role, programming language adoption, and demographic sentiment trends using advanced Power BI techniques.

Education

Institute of Business Management

Bachelor's in Data Science | Merit Scholarship Recipient | 3.65 CGPA

Karachi

2022-2026

Skills

Languages: Python (Pandas, NumPy, Scikit-Learn), SQL

Tools/BI: Power BI, Tableau, Excel, IBM SPSS

DevOps/Cloud: GitHub Actions, Hopsworks, Render, PostgreSQL.