

# Mahmoud Elhelaly

## Data Analyst

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### Summary

Data tells stories... I remove the noise to ensure you can hear them clearly.

### Experience

#### High Solve Company, Data Analyst

- Built Power BI dashboards for cars retail to track multi-branch KPIs.
- Created data quality frameworks to audit ERP entries, resolving 5% of data entry errors.
- Analyzed sales reps performance to provide accurate reports.

Hybrid  
June 2025 – Mar 2026  
10 months

#### NTI Summer Training Program, Instructor - Data Analytics

- Trained 90+ students in full-cycle data analytics, ETL, and database design.
- Led technical sessions in SQL, Python, and Power BI to build production-ready solutions.

Hybrid  
July 2025 – Jan 2026  
7 months

#### Freelance, Data Analyst & BI Consultant

- Translated client requirements into scalable data models and Power BI reports.
- Streamlined reporting by integrating disparate data sources, reducing manual work by 30%.

Online  
Feb 2025 – present  
1 year 2 months

### Projects

#### Electronics Retail Performance & Forecast

- **Tech Stack:** SQL Server, Power BI, DAX, Excel, Power Query
- **Problem:** Management lacked visibility into brand-level profitability and forecast variance.
- **Solution:** Built a drill-down dashboard comparing YoY historical data to real-time KPIs.
- **Impact:** Enabled data-driven procurement, optimizing stock and negotiating volume discounts.

#### Retail Data Warehouse & Strategic Analytics

- **Tech Stack:** SQL Server, Star Schema, Advanced T-SQL, Medallion Arch
- **Problem:** Siloed CSVs from ERP/CRM caused data duplication and unreliable reporting.
- **Solution:** Built an ETL pipeline to transform raw files into a Gold-layer SSOT.
- **Impact:** Delivered RFM Segmentation and Pareto Analysis to optimize marketing spend.
- Architected a Medallion DWH (Bronze/Silver/Gold) to centralize disparate retail sources.
- Implemented a Star Schema model, reducing report generation latency by 70%.

#### HR Early Warning System (Employee Attrition)

- **Tech Stack:** Python (Scikit-Learn), XGBoost, Random Forest, Seaborn
- **Problem:** Lack of quantitative tools to identify attrition root causes or predict churn risk.
- **Solution:** Performed EDA and built an XGBoost pipeline to identify high-risk employee segments.
- **Impact:** Created an early warning system for HR to apply proactive retention strategies.
- Developed a predictive model for employee turnover using a 1,400+ record dataset.
- Achieved 87% accuracy in identifying key churn drivers like salary and travel frequency.

#### Enterprise Banking ETL & Dimensional Modeling

- **Tech Stack:** Informatica PowerCenter, Oracle SQL, PL/SQL, Star Schema
- **Problem:** Core banking system degradation during month-end due to heavy reporting loads.
- **Solution:** Built an offloaded ETL pipeline and Oracle reporting layer with data validation.
- **Impact:** Improved reporting efficiency by 10X and ensured 100% audit-ready data accuracy.
- Architected a high-availability Informatica framework to offload production workloads.
- Engineered an Oracle Star Schema to optimize transactional data for regulatory reporting.

### Tech Stack

**Business Intelligence & Tools:** Power BI, DAX, Tableau, Excel, SSIS, SSRS, SSAS, Data Warehousing, ETL/ELT, Data Modeling, Informatica Power Center

**Data Engineering:** Python, SQL, PostgreSQL, SQL Server, ETL, Data Modeling, Linux(Bash)

**Programming:** Python (Pandas, Scikit-Learn), SQL (T-SQL, PostgreSQL)

### Education

**Al-Azhar University**, B.Sc. in Engineering

Cairo, Egypt  
2019 – 2024

**Information Technology Institute (ITI)**, Power BI Track Trainee

Hybrid  
Dec 2024 – Mar 2025

## Certifications

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**Power BI Data Analyst Associate | Microsoft**

**Data Analyst Associate | DataCamp**

## Languages

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**Languages: Arabic:** Native \hspace{1cm} **English:** Professional