Moataz Elmesmary

BI Developer - Data Analyst

PROFILE

Data Analyst | BI Developer Proficient in SOL, Power BI, Tableau, Python, Excel, ETL processes, Dashboarding, MSBI Stack (SSIS, SSRS, SSAS) and data warehousing with a strong ability to transform raw data into actionable insights. Created the most-starred Data Science Roadmap in MENA (Top 3% GitHub repositories).

EDUCATION

Bachelor's in Computer & Information Sciences (Medical Informatics Dept),

Sep 2019 - Jun 2023

Mansoura University

GPA: 3.3 (Very Good) | **A+** in Graduation Project

EXPERIENCE

Data & Reporting Analyst, El Ezaby Pharmacies (HR Department)

Jul 2025 - Present Nasr City, Egypt

- Managed workforce data across **430+ branches**, handled workforce datasets at scale.
- Built a **DWH** model to consolidate employee snapshots, resignation records, and workforce plans that reduced manual data processing time by 40%.
- Developed Power BI dashboards to monitor HC, FTE changes, and workforce gaps between the actual and the planned, improving HR reporting efficiency by 60%.
- Analyzed resignation patterns and root causes to support retention strategies.
- Tracked HR performance KPIs, including turnover and manpower planning efficiency.

INTERNSHIPS

ITI - Business Intelligence Developer, Information Technology Institute - Intensive Code Camp (ICC) 4+ months ☑	Mar 2025 – Jul 2025
Ideation Bootcamp - Developed a final project for a potential startup, $Creativa$ -36 $h ext{ } ext{ iny }$	Nov 2022 – Dec 2022
Computer Vision, ITI Summer Training - 144 hours - Projects ☑	Jul 2022 – Sep 2022
Python for Machine Learning & Data Science, CCIC - 72 hours ☑	Aug 2021 – Oct 2021

PROJECTS

End-to-End BI Examination System, ITI Graduation Project ☑

- Implemented end-to-end DWH lifecycle: from ERD/mapping and T-SQL creation to developing the ETL pipeline in SSIS.
- Wrote 25+ Stored Procedures, and built 6 parameterized SSRS reports for key operational insights.
- Built full **Power BI** solution, including **data modeling**, advanced **DAX** measures, and 20+ interactive dashboards.

E-commerce Logistics Performance Analysis, *Vodafone Egypt Technical Assessment* □

- Built a full analytical solution in Power BI, covering data cleaning (Power Query), modeling, and KPI creation (DAX).
- Integrated Orders, Deliveries, and Products into a unified model and designed dashboards to track performance.
- Uncovered critical insights and **Recommended** actions to boost on-time delivery by **10–15%**.

Airlines Delay Analysis, Power BI ☑

- Transformed raw data into an optimized **Star Schema** data model using Power Query (ETL).
- Developed interactive dashboards with over **12 DAX** measures to track KPIs like (Delay Rate, On-Time Performance)
- Uncovered critical insights into delay causes and airline performance.

Egyptian Mobile Store Sales Analysis (Excel)

- Built an **end-to-end sales analytics solution** analyzing 160M+ EGP across 12+ branches.
- Developed **15+ DAX measures** including time intelligence (MoM Change %, Previous Month Sales).
- Extracted key insights: company market shares and product metrics (COGs, Net Profit, Profit Margin %).

Superstore Sales & Customer Analytics Dashboard (Tableau)

- Built dynamic dashboards with KPIs, trends, and product/customer insights with drill-down and cross-filtering.
- Used advanced charts: forecast, waterfall, lollipop, donut, map, and more.

Egyptian Grocery Market Basket Analysis, (Association Rules) ☑

- Extracted frequent itemsets using the **Apriori algorithm**.
- Generated association rules with key metrics: **support**, **confidence**, **lift**, etc.
- Directed Network Graph showing the top 20 strongest rules.

Sales Analytics (Power BI + SQL) □

- created **SQL views** for dimensions, leveraging DirectQuery and a robust **Star Schema** with role-playing dimensions.
- Implemented 10+ impactful DAX measures and advanced KPIs to provide sales and operational insights.

A Smart Upper-Exoskeleton for Patients with Paralysis - [Graduation Project], Team Leader

- Used YOLOv7 for Object Detection. Measured distance and object size.
- Applied Mask RCNN for Segmentation and extracting object shape for grasping.
- Applied voice recognition using Whisper OpenAI.

Diabetes Prediction, Web App Based on ML ☑

- Preprocessed data, trained a **Random Forest model** (85% accuracy) and Deployed the model using **Flask**.

Car Prices Prediction □

- Cleaned the dataset and Visualized trends to identify pricing patterns.
- Applied Classification, Regression, Hierarchical Clustering and K-Means.

Signature Restoration, *Matlab* □

- Used Image processing techniques and removed gaussian noise, salt and pepper and fixed the colored signatures.

Breast Cancer Detection Using Perceptron and SLP ☑

- Built a Single-Layer Perceptron model for breast cancer classification, achieving 95% accuracy.
- Optimized training performance and visualized weight convergence across epochs.

Data Analysis Using Excel ☑

- Provided insights to sales performance, customer behavior, and product trends through interactive dashboards.
- Utilized advanced Excel functions and formulas to automate data analysis and reporting processes.
- Identified key trends and patterns in sales data, leading to data-driven decision-making.

Distance Measurement System Using Realsense Camera ☑

- Developed a computer vision system to measure distance and object size using OpenCV.
- Implemented depth sensing, object detection, and segmentation to achieve real-time measurements.
- Built algorithms to convert pixel data into real-world units for accurate distance and size estimation.

TECHNICAL SKILLS

SQL Power BI Excel Tableau DAX Statistics Probability Data Visualization GIT GitHub	
Data Preprocessing Python — (Pandas, Numpy, Matplotlib, Seaborn) NoSQL-MongoDB Data Modelling	
Machine Learning Fundamentals Big Data Fundamentals ETL MSBI Stack (SSIS, SSRS, SSAS) GSheets	

AWARDS & COMPETITIONS

Made In Egypt Competition (Finalist), Smart World Track ☑ Qualified for the final stage out of 131 teams from different governorates of Egypt.	Sep 2023
Egypt IoT & AI Challenge - (TOP 10) ☑ One of the best 10 projects out of 200 GP all over Egypt.	Sep 2023
Ibtikar contest - Robotics Field - (1st place), Hosted by Egypt's Ministry of Youth and Sports Out of 33 projects, we were chosen to represent our university in Ebdaa Contest Stage.	Jan 2023
Scientific Gallery - Technology Field - (1st place), <i>Mansoura University</i> Participated with our Graduation Project in the 7th edition; awarded a shield certificate.	Dec 2022
The Ideal Student 2022-2023 (1st Place), Mansoura University	Dec 2022

CERTIFICATES

Associate Data Analyst in SQL ☑ DataCamp 39h track - Apr 2025	Math for Data Science ☑ Alison Course - Jul 2023	1St Place - Scientific Gallery ☑ Technology Field - Dec 2022
Ideation Bootcamp Training ☑ Creativa – Dec 2022	Computer Vision ☑ ITI - Summer Training - Sep 2022	Data Science Instructor ☑ CIS Team - Sep 2022
Data Science & Machine Learning ☑ CCIC – Oct 2021	ITDS-4 Participation ☑ Mansoura University - Mar 2020	Python Programming Udacity - Mahara Tech - 2019

MENTORING - PROVIDING ONLINE CONTENT

Featured in: Youm7 ☑ | Al-Bawaba News ☑ | Nahar Egypt ☑

Data Science Roadmap - GitHub

- Created a Reference ranked within the top 3% of GitHub repositories globally with over 3.8K+ stars on GitHub.
- Mentored over 70 learners in Data Science field.
- Made online and offline sessions. Ran Workshops.

Data Science Roadmap Explanation - YouTube, +17K Views ☑

INTERPERSONAL SKILLS

- Communication Skills

- Creative Thinking

- Attention to Detail

- Presentation

- Team Working

- Time Management

- Multi-Tasking

- Leadership

STUDENT & VOLUNTEERING ACTIVITIES

CIS Team, HR Member 2020 - Media Innovator 2021 - Data Science Squad Instructor 2022

Student Union, Families Committee Member 2020 - Sports Committee Head 2021 - Scientific Committee Head 2023

Students For Egypt, Sports Committee Member 2020 - Head Of Sports Committee 2021 - Vice Leader 2022

Osbat Elkheir, HR Committee Member 2016 - Treasury Committee Head 2018

LANGUAGES

ArabicEnglishFrenchNativeProficient in Speaking and WritingBeginner

ADDITIONAL INFORMATION

Military Service, Soldier in the Air Forces (Future Of Egypt)
Completed As a Contract Data Analyst,

Jan 2024 - Mar 2025

I Handled and analyzed large volumes of financial and contractual data related to military assets, including lands, farms, buildings, and lease agreements.