

Moataz Elmesmary

BI Developer - Data Analyst

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PROFILE

Data Analyst | BI Developer Proficient in **SQL, 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 & INTERNSHIPS

ITI - Business Intelligence Developer, Mar 2025 – present
Information Technology Institute - Intensive Code Camp (ICC) 4+ months ✖

Military Service (Contract Data Analyst), Soldier in the Air Forces (Future Of Egypt) Mar 2024 – Mar 2025

Ideation Bootcamp - Developed a final project for a potential startup, Creativa-36h ✖ 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

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 ✖

- 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.
- Used advanced charts: forecast, waterfall, lollipop, donut, map, and more.
- Fully linked and story-driven dashboard experience, with drill-down and cross-filtering capabilities.

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.

PowerBI project (Sales Company) ✖

- Prepared data, transformed raw data into a clean, structured format.
- Built dynamic, interactive dashboards, Focused on user experience providing real-time visual representation.
- Provided actionable insights for decision-makers, enabling them to track performance across lots of features.

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.

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 and trained a **Random Forest model** (85% accuracy).
- Deployed the model using **Flask** for real-time predictions.

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.

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)**

AWARDS & COMPETITIONS

Made In Egypt Competition (Finalist), *Smart World Track* [↗](#) Sep 2023
Qualified for the final stage out of 131 teams from different governorates of Egypt.

Egypt IoT & AI Challenge - (TOP 10) [↗](#) Sep 2023
One of the best 10 projects out of 200 GP all over Egypt.

Ibtikar contest - Robotics Field - (1st place) Jan 2023
Out of 33 projects, we were chosen to represent our university in Ebdaa Contest Stage, hosted by Egypt's Ministry of Youth and Sports.

Scientific Gallery - Technology Field - (1st place), *Mansoura University* Dec 2022
Participated with our Graduation Project in the 7th edition; awarded a shield certificate.

The Ideal Student 2022-2023 (1st Place), *Mansoura University* Dec 2022
Featured in: Youm7 [↗](#) | Al-Bawaba News [↗](#) | Nahar Egypt [↗](#)

CERTIFICATES

Associate Data Analyst in SQL [↗](#) **Math for Data Science** [↗](#) **1st Place – Scientific Gallery** [↗](#)
DataCamp 39h track - Apr 2025 Alison Course - Jul 2023 Technology Field - Dec 2022

Ideation Bootcamp Training [↗](#) **Computer Vision** [↗](#) **Data Science Instructor** [↗](#)
Creativa – Dec 2022 ITI - Summer Training - Sep 2022 CIS Team - Sep 2022

Data Science & Machine Learning [↗](#) **ITDS-4 Participation** [↗](#) **Python Programming**
CCIC – Oct 2021 Mansoura University - Mar 2020 Udacity - Mahara Tech - 2019

MENTORING - PROVIDING ONLINE CONTENT

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 [↗](#)

Intro To Data Science - YouTube, +13K 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

Arabic Native	English Proficient in Speaking and Writing	French Beginner
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ADDITIONAL INFORMATION

Military Service, *Soldier (Air Forces)*
Completed

Jan 2024 – Mar 2025

- Contract **Data Analyst** & IT Help Desk