

Mohamed Abdeen

BI/ML Engineer

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I don't just work with data — I solve business problems with it. As a Data Enthusiast who enjoys the journey of discovering data secrets and precious insights, delivering it with accuracy and clarity, committed to help teams and businesses achieve their goals using a variety of methodologies and tools.

Education

The Higher Institute of 6th October

B.Sc. of Computer Science and Information Systems

2025

Very Good

Work Experience

Information Technology Institute – ITI

Jan 2026 – May 2026

Business Intelligence Trainee – Power BI Internship

- › Delivered interactive, KPI-driven dashboards and data models as part of a 393-hour intensive Business Intelligence program.
- › Performed advanced data transformation, cleansing, and visualization to extract actionable insights from real-world datasets using Power BI and Python.
- › Designed relational databases and wrote complex SQL queries to support reporting and analytical solutions.

Digital Egypt Pioneers – DEPI

Dec 2025 – May 2026

AI & Data Science – Microsoft Machine Learning Engineer Trainee

- › Python, Scikit-learn, Pandas, NumPy, Microsoft ML Stack, Feature Engineering, Model Deployment
- › Built and deployed end-to-end machine learning models for predictive analytics using Python and Microsoft ML technologies.
- › Performed advanced feature engineering and model optimization to improve performance and generalization.
- › Applied statistical analysis and industry best practices to transform raw data into scalable, production-ready AI solutions and ML pipelines.

Mostaq

Feb 2025 – Present

Data Analyst Freelancer

- › Automated data acquisition from websites and APIs using Python to streamline data collection workflows.
- › Transformed raw data through cleaning, preprocessing, and database preparation for analysis.
- › Developed clear, insight-driven dashboards and analytical reports in Excel to support data-informed decision-making.

Shomoul Pro Institute

Oct 2025 – Dec 2025

Data Trainer

- › Enhanced organizational data literacy by delivering hands-on training on Excel, Power BI, and core data-driven concepts for employee upskilling.
- › Collaborated with Gulf-region enterprises to provide tailored data training programs and analytical support aligned with business needs.

Future Academy EG

Oct 2024 – Jul 2025

Data Entry Specialist

- › Digitized educational materials by converting books and PDFs into structured digital formats using Google Workspace.
- › Developed interactive educational video content using Canva, ensuring accuracy, clarity, and learner engagement.

Projects

Intelligent End-to-End Data Pipeline Platform

- › Designed and developed a Python-based end-to-end data pipeline supporting multi-source ingestion, automated cleaning, transformation, and ML model integration for predictive analytics.
- › Built an interactive GUI for dynamic data visualization and automated dashboard generation, enabling streamlined analytical workflows.

Competitive Marketing Intelligence System

- › Engineered a Power BI solution using a star-schema data model to compute dynamic ROI and evaluate performance across three sales channels.
- › Integrated sentiment analysis to identify high-growth markets and enhance data-driven marketing strategy.

Global COVID-19 Analytics & Decision Support System

- › Processed millions of global health records using advanced SQL queries to compute key KPIs including fatality rate (2.1%) and vaccination coverage (45%).
- › Delivered time-series insights and trend analysis to evaluate pandemic progression and vaccine impact.

Madrid Real Estate Price Prediction

- › Analyzed 21,000+ property records to identify location as the primary price driver through exploratory data analysis.
- › Built and evaluated regression models (R^2) to predict property prices and support investment decision-making.

Comprehensive Media Catalog Scraper

- › Developed an automated web scraper to collect global film and series data from dynamic websites using Selenium.
- › Transformed raw scraped data into a structured database ready for analysis and reporting.

Graduation Project – Real-Time Fog & Obstacle Detection for Autonomous Vehicles

- › Built a deep learning pipeline combining LSTM for fog detection and YOLOv8 with CNN-LSTM for obstacle recognition on 20K+ sensor records.
- › Achieved approximately 79.5% accuracy by fusing LiDAR, RGB imagery, and vehicle telemetry data.

Skills

Data Analysis & Business Intelligence

- **Advanced Excel:** Power Pivot, Power Query, PivotTables, advanced formulas
- **Power BI:** DAX, Power Query, Data Modeling, interactive dashboards
- **Visualization Tools:** Tableau, dashboard storytelling, KPI design

Database Management & SQL

- **Database Systems:** SQL Server, MySQL, PostgreSQL
- **Advanced Querying:** Complex joins, subqueries, CTEs, views, aggregations
- **Data Architecture:** Data modeling (star schema, snowflake schema), optimization, data warehousing concepts

Programming & Data Engineering

- **Python Ecosystem:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn
- **Data Acquisition:** Web scraping (Selenium, BeautifulSoup), API integration
- **Data Pipeline:** Data cleaning, ETL/ELT workflows, Git, VS Code

Machine Learning & Artificial Intelligence

- **Core ML:** Supervised & unsupervised learning (regression, classification, clustering), feature engineering, model evaluation
- **Deep Learning:** TensorFlow, Keras, PyTorch, CNN, LSTM
- **Advanced AI:** Computer vision (YOLOv8, OpenCV), generative AI, predictive analytics

Certifications

IBM: Data Analyst

IBM: Data Science

IBM: Machine Learning

Google: Data Analyst

Google: Business Intelligence

Meta: Data Analyst

DataCamp: Data Analyst

DataCamp: Data Engineer

DataCamp: Data Scientist

Udacity: Data Analysis (FWD)

Udacity: GenAI & AWS

Huawei: HCIA-Big Data