# **Mahmoud Mohamed Refaat**

Data Scientist | • Python • Machine Learning • SQL

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Military Status: Completed Mahmoud Refaat Mahmoud Refaat Mahmoud Refaat

## **EDUCATION**

#### **B.Sc.** Mathematics & Computer Science

Faculty of Science

• Grade: Very Good (B+)

08/2016 - 08/2020 Benha

## **PROFILE**

Data Scientist with a strong foundation in Python, statistics, and machine learning. Experienced in building regression and classification models, feature engineering, and model optimization. Completed multiple Kaggle projects (House Prices, Titanic) with leaderboard results. Skilled in SQL and Power BI for data preprocessing, visualization, and business insights.

#### **SKILLS**

#### **Core Skills**

- Python (Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn)Python (Pandas, NumPy, Scikit-learn)
- Machine Learning (Regression, Classification, Feature Engineering)
- SQL (Joins, Query Optimization, Stored Procedures)

#### **Supporting Skills**

- Data Visualization & BI (Power BI, Excel Advanced)
- Web Scraping & Automation (Selenium, Scrapy, BS4, API Integration)

## Learning & Development

- Neural Networks (Keras, TensorFlow basics)
- Natural Language Processing (NLP)
- SpaCy

## PROFESSIONAL EXPERIENCE

# Data Analyst | BI & Sourcing Engineering - Z2Data

• Automated weekly **SQL-based reports** for customer inventory, reducing manual effort by 30%.

• Built and deployed web crawling solutions to continuously update inventory from multi-seller websites, improving data freshness and reliability.

- Delivered SQL-based reports covering **10+** clients on weekly basis.
- Processed 10,000,000+ electronic part numbers weekly for supplier evaluation and sourcing optimization.
- Conducted shortage and cross-functional analysis to suggest alternative **components**, helping mitigate supply risks for clients.
- Ranked suppliers based on pricing and availability, contributing to cost savings and supplier optimization across projects.
- Worked with SQL, Python, Power Query, and Excel automation to support data warehousing and BI dashboards.

## **PROJECTS**

# House Prices Prediction - Advanced Regression Techniques (Kaggle) ∂

• Developed regression models to predict house prices with feature engineering and optimization.

• Achieved Kaggle leaderboard score: 0.14909

## Titanic Survival Prediction (Kaggle) &

• Built classification models (Logistic Regression & Random Forest) with preprocessing and feature engineering.

Feb 2024 – Present Benha, Egypt

08/2025 - 08/2025

07/2025 - 07/2025

• Achieved 0.7676 accuracy on Kaggle public leaderboard

## **SQL Stock Status Checker**

05/2024 - 06/2024

- Designed an SQL tool to instantly check in-stock vs. out-of-stock products using Part-ID inputs.
- Integrated with existing inventory database for real-time stock status.

# Web Scraping Tool for JavaScript-Rendered and Static Websites

05/2024 - 05/2024

- Developed a Python-based scraping pipeline for both static and JavaScript-rendered websites.
- Used Selenium, Scrapy, and BeautifulSoup to handle dynamic content loading.
- Automated data collection and exported results to Excel for streamlined analysis.

# **COURSES**

| • ASP.NET Core MVC – Coursera / Practical Projects               | 2024 – Present |
|--|----------------|
| • Web Scraping & Crawling – Applied Projects                     | 2024 – Present |
| • SQL & Database Management – Coursera / Professional Experience | 2022 – Present |
| Machine Learning – Coursera / freeCodeCamp                       | 2025 – Present |

## **LANGUAGES**

Arabic: Native English: Very Good (Reading, Writing, Speaking)