

# Mahmoud Mohamed Refaat

Data Analyst | BI & Web Scraping, Expanding into Machine Learning  
& .NET Development

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📍 Quweisna – Menoufia Governorate, Egypt 🗓 2/7/1998 🇪🇬 Egyptian 🏆 Completed

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👤 Mahmoud Refaat

## 🎓 EDUCATION

### Bachelor's Degree in Mathematics and Computer Science

08/2016 – 08/2020

Faculty of Science

Benha

- Grade: Very Good (B+)
- Data Structures, Algorithms, Statistics, Probability, Linear Algebra, Data Analysis

## 👤 PROFILE

Data Analyst with solid experience in Python, SQL, and data visualization. Skilled in web scraping and building BI dashboards to deliver actionable business insights. Passionate about expanding skills in machine learning and .NET development to contribute to innovative data-driven projects.

## 🧠 SKILLS

### Programming & Data

#### Analysis

- Python (Pandas, NumPy, Scikit-learn), Power Query M, DAX

### Web Development

- ASP.NET Core MVC, ASP.NET Web API, HTML, CSS,

### Machine Learning

- Regression, Classification, Neural Networks

### Excel (Advanced)

- Pivot tables, advanced formulas, macros, Power Query (M), Power Pivot (DAX)

### Databases

- SQL (T-SQL, Query Optimization, Joins, Stored Procedures)

### Data Visualization & BI

- Power BI, Matplotlib, Seaborn

### Web Crawling &

#### Scraping

- Selenium, Requests, Scrapy, lxml.etree, BeautifulSoup, API Integration

## 📁 PROFESSIONAL EXPERIENCE

### Data Analyst | BI & Sourcing Engineering

02/2024 – Present

Z2Data

Benha, Egypt

- Data Analyst & Sourcing Engineer, analyzing datasets, optimizing sourcing strategies, and improving supplier performance.
- Provided shortage and cross-function analysis, identifying alternative parts with similar physical and functional features for supply chain optimization.
- Processed electronic parts lists from clients for market evaluation, identifying which parts were unique, competitive, or widely available.
- Ranked suppliers by the lowest prices, optimizing supplier selection and cost efficiency.
- Data Analyst specializing in customer inventory data delivery and weekly SQL-based reporting
- New System crawling solutions to update inventory data and onboard new sellers
- Technologies: SQL, DWH, Excel, Power Query, Python

## PROJECTS

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### Crawling & Data Mapping Tool

08/2024 – Present

*New System*

- Built a web crawling system to extract inventory data from multiple websites.
- Designed a data mapping process to transform the extracted data into a standardized format before inserting it into SQL databases.
- Enabled automatic updates for inventory data and addition of new sellers.

### House Prices Prediction – Advanced Regression Techniques (Kaggle)

08/2025 – 08/2025

*Machine Learning*

- Developed a machine learning model to predict house prices in Ames, Iowa, using multiple regression algorithms.
- Performed data cleaning, feature engineering, and model optimization to improve accuracy.
- Achieved a Kaggle leaderboard score of **0.14909**.

### Titanic: Machine Learning from Disaster

07/2025 – 07/2025

*Machine Learning*

Developed a classification model to predict passenger survival using Python (Pandas, Scikit-learn). Implemented data preprocessing (handling missing values, encoding, feature engineering) and model training with Logistic Regression & Random Forest. Achieved **0.7676** accuracy score on Kaggle public leaderboard.

### SQL Stock Status Checker

05/2024 – 06/2024

*Market Stock*

- Developed an SQL-based tool to differentiate between in-stock and out-of-stock products using Part-ID as input.
- Integrated the tool with stored inventory data to instantly return stock status for any given part.

### Web Scraping Tool for JavaScript-Rendered and Static Websites

05/2024 – 05/2024

*Web Scraping*

- Developed a scraping tool capable of extracting data from both static websites and dynamic sites that heavily use JavaScript to render content.
- Utilized Python-based methods for straightforward, static websites where data is directly accessible from the front-end.
- Employed advanced crawling techniques and automation tools (e.g., Selenium) to handle JavaScript-driven websites, enabling data extraction even when content loads dynamically.
- Automated data collection and export to Excel sheets for streamlined analysis.

## COURSES

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### Machine Learning

01/2025 – Present

- Various Online Platforms (Coursera, freeCodeCamp, W3Schools, YouTube, Official Docs)

### ASP.NET Core MVC

2024 – Present

- Self-paced learning via Coursera, YouTube, and practical projects

### Web Scraping & Crawling

2024 – Present

- Learned from documentation, YouTube tutorials, and applied in automation projects

### SQL & Database Management

2022 – Present

- Professional Experience & Various Online Platforms (Coursera, YouTube, Official Documentation)

## LANGUAGES

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English

