

# MAHMOUD SAMHOUD

Data Analyst

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## Objective Summary

I am a highly motivated data analyst; I possess a strong passion for leveraging data-driven insights to support organizations' decision-making processes. With a solid foundation in data analysis tools, I am equipped to extract, clean, analyze, and visualize data to unearth valuable information and drive actionable business outcomes. My ultimate goal is to contribute to an organization's success by utilizing my technical skills, curiosity, and analytical mindset.

## Skills

- SQL | MySQL | MS SQL Server | Python | NumPy | Pandas | Matplotlib | Seaborn | Requests | Beautiful Soup
- Tableau | Microsoft Power BI | MS Excel | Pivot Tables | Conditional Formatting | Advanced Formulas | OOP
- Git | GitHub | C Language | C++ | MATLAB | HTML | CSS

## Work Experience

### Cloud-Based Condition Monitoring & Data Analysis – RITEC Company.

Nov 2021 – Jun 2022

- Utilized **Python** to extract and clean multiple bearing datasets for different types of rotary machines.
- Performed various vibration analyses like FFT, Waterfall, Full Spectrum, SCP, Orbit Analysis, Envelope Analysis, PSD, and Cepstrum using **NumPy**, **SciPy**, and **Pandas** libraries.
- Visualized the data using **Pandas**, **Matplotlib**, and **Seaborn** libraries and created professional reports that help vibration analysts detect a wide range of faults in many rotary machines and prevent catastrophic failures.

### Research and Development Mechanical Engineer – El-Marakby Steel. (Intern)

Sep 2021 – 1mo.

- Collaborated with the R&D team to design a three-direction hydraulic press for compressing scrap.
- Built the hydraulic control circuit using Automation Studio.

### Hydraulics, Electro Hydraulics Engineer – EGTA (Intern)

Aug 2021 – 1mo.

- Built different hydraulic circuits for different mechanical mechanisms and the corresponding electrical circuits.

## Education

### BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING – Cairo University.

Sep 2018 – July 2022

- Overall Grade: 83% - Very Good with honor (GPA 3.32)
- Graduation Project: Cloud-Based Condition Monitoring and Data Analysis with Excellent Grade.

## Recent Projects

### Plato's Pizza Sales Dashboard

- Created a dashboard using Power BI to help with tracking KPIs (sales, revenue, orders), tracking daily and monthly trends, and the performance of different products.
- Transformed and processed raw data using DAX to ensure data completeness and validity.

### Adventure Works Cycles Dashboard

- Created a dashboard with **Power BI** to help client track KPIs (sales, revenue, returns), compare regional performances, analyze product-level trends and forecasts, and identify high-level customers.
- Transformed and processed raw data using DAX to ensure data completeness and validity.
- Built a relational data model, added new calculated columns and DAX measures.

### Mega Mart Acquiring New Retailer

- Utilized **Python** to analyze over 2 million transactions by product, household, and store to get insights about the retailer's main strength.
- Reduced the memory usage by 33% to speed up the analysis process.
- Aggregated and visualized the data by using **NumPy** and **Pandas** to compile a professional report.

### Predicting Credit Card Approvals

- Utilized Python to analyze credit card applications for a commercial bank.
- Preprocessed and performed exploratory data analysis to build intuitions.
- Fitted a logistic regression model to the data and evaluated its performance.

### Walmart Sales Analysis

- Analyzed 1000 row dataset from Walmart branches in different cities of Myanmar to get insights into different products, sales, and customer behavior Using **SQL** and **MySQL**

## Languages

- **Arabic** - Mother Tongue
- **English** - B2 Business Preliminary

## Courses & Certificates

- **Data Scientist with Python Track – Datacamp.**
- **The Ultimate MySQL Bootcamp – Udemy**
- **Advanced MySQL Topics – Coursera (Provided by Meta)**
- **MS Power BI for Business Intelligence – Udemy (Maven Analytics)**
- **Learn Python Programming Masterclass – Udemy**
- **The Git & GitHub Bootcamp – Udemy**
- **Excel (Advanced Formulas, Visualization, Pivot Tables, Power Query, and Dax) – Maven Analytics**
- **Web Scraping and API Fundamentals in Python - Udemy**