

# Maryam Mohamed Mahmoud Abd-ElRahman

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## Professional Summary

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Passionate Data Scientist with expertise in leveraging advanced analytics and machine learning to extract insights from complex datasets. Seeking a challenging position to contribute to data-driven decision-making and innovative problem-solving.

## Education

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### BE in Computer Engineering and Software Systems

University of Ain Shams, Cairo

Sep 2018 - Jun 2023

GPA: 3.39 (Summa Cum Laude)

### IGCSE/A Level

Al Bashaer International School, Cairo

Cairo

Sep 2015 - Aug 2017

GPA: 3.9 (Summa Cum Laude)

### IGCSE/O Level

Thamer International School, Jeddah

Jeddah

Sep 2011 - Aug 2015

GPA: 3.8 (Summa Cum Laude)

## Professional Experience

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### Data Scientist

Phoenix SAP Consulting, Cairo

Oct 2023 - Present

- Conducted EDA and automated ETL.
- Developed and optimized ML pipelines.
- Deployed web apps with React and Django.
- Performed data extraction and analysis using SQL.
- Created data visualizations.
- Aligned models with business goals.
- Ensured data quality.
- Followed agile methodology.
- Documented projects.

### Software Developer Intern

Mentor Graphics, Cairo

Jun 2021 - Aug 2021

- Used Jira and Confluence.
- Fixed errors in Java development environment.
- Worked with Linux OS and virtual machines.
- Managed version control with Perforce.

### Mathematics And Physics Teaching Assistant

Al Bashaer School, Cairo

Jun 2016 - Aug 2017

- Conducted lab sessions for Physics course.
- Led review sessions for O/AS/A2-level students.
- Developed teaching materials with professors.
- Provided one-on-one student assistance.

## Skills

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- **Programming:** Python, R, Java, C++, SQL, JavaScript, HTML, CSS, XML, Kotlin, MATLAB, Bash, React, Flask, OOP, NoSQL
- **Data Analysis:** Pandas, NumPy, SciPy, MySQL, PostgreSQL, Matplotlib, Seaborn, Plotly, Scikit-learn, TensorFlow, PyTorch, XGBoost, Keras
- **Bioinformatics:** Bioconductor, BLAST, Galaxy
- **Tools:** Git, AWS, Snowflake, DBT
- **Web Development:** Django, Node.js, RESTful APIs
- **Version Control:** Git, GitHub, GitLab, Perforce
- **OS:** Windows, Linux, Unix, minix
- **ML/DL:** Regression, Classification, Clustering, Neural Networks, CNNs, RNNs
- **Statistics:** Hypothesis Testing, Regression, Time Series Analysis
- **Software:** Scrum, Agile, Jira, Trello, Confluence
- **Communication:** Written, Verbal, Presentation
- **Soft Skills:** Problem Solving, Critical Thinking, Team Collaboration, Adaptability, Time Management

## Projects

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### Semantic Image Manipulation

- **Technologies:** Image Processing, Lama ,Diffusion Model, Command-based Editing
- Developed a system for editing, removing, and adding to images using simple commands.

### Predicting Machine Failure in Gas Stations

- **Technologies:** Time Series Analysis, Predictive Modeling
- Engineered a robust time series model to predict machine failures, enhancing maintenance efficiency.

### Soccer Data Visualization

- **Technologies:** Data Visualization, mplsoccer

- Created insightful visualizations of soccer data using matplotlib and mplsoccer for strategic analysis.

### Genetic Mutation Classification

- **Technologies:** Genetic Analysis, Data Classification
- Conducted genetic data analysis to accurately classify mutations, aiding in medical research.

### Tracing SARS-CoV-2's Evolution

- **Technologies:** Genomic Data Analysis, Bioinformatics Tools
- Applied bioinformatics tools to trace the evolution of SARS-CoV-2, contributing to epidemiological studies.

## Training Experience

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### IoT Technologies & Artificial Intelligence

National Telecommunication Institute (NTI)

Jul 2022 - Aug 2022

- IoT based projects (smart city, smart home, smart factory, e-health over IoT)
- IoT Architectures and protocols
- Microcontroller, C Programming

- Embedded Linux, Shell, and Linux
- Design GUI interface
- Build Image processing applications
- Raspberry Pi, different Models, etc.

### Data Science Inside Out

Sprints

Jul 2021 - Sep 2021

- Data acquisition and cleaning
- Data exploration using visualization and statistics
- Supervised learning for classification and regression tasks

- Unsupervised learning for clustering and dimensionality reduction
- Practical experience with big data and machine learning models

### Android Development Booster

Sprints

Aug 2020 - Oct 2020

- Developed UI resources and layout designs, including XML RecyclerView
- Handled JSON data processing
- Implemented REST APIs using Retrofit library

- Applied architecture patterns such as MVP, MVVM, and Observer
- Utilized jetpack's architecture components, specifically Fragments
- Introduced to unit testing and Gradle fundamentals

## Languages

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- English (Native)
- Arabic (Native)
- German (Beginner)

## Achievements

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- 3rd place in 10th undergraduate research competition, Abu Dhabi University
- Elected as Aviation Head of IT committee (2021-2023).
- member in the Aviation IT committee from 2020 to 2023.
- Won Pirates Egypt Competition in the Arduino Workshop 2018 to 2019
- competed in iChallenge '19 training in the electromechanical track.

## Courses and Certifications

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- **Hacking COVID-19 — Course 1: Identifying a Deadly Pathogen** by Coursera
- **Hacking COVID-19 — Course 2: Decoding SARS-CoV-2's Secrets** by Coursera
- **Introduction to Genomic Technologies** by Coursera
- **Algorithms for DNA Sequencing** by Coursera
- **Command Line Tools for Genomic Data Science** by Coursera
- **Ethics, Technology and Engineering** by Coursera
- **Software Development Internship** by Mentor Graphics
- **IoT Technologies and Artificial Intelligence Training** by NTI
- **Android Development Booster** by Sprints

## References

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### **Mohamed ElFadi Data Science Team lead**

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### **Ayman Akl (Senior Data Scientist)**

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