

Mohamed Mustafa

junior Data Engineer

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Summary

Junior Data Engineer with hands-on experience in developing and maintaining ETL/ELT processes. Successfully automated data pipelines using Python and SQL, improving data processing efficiency. Core technical skills include database management, data warehousing fundamentals, and creating dashboards with Power BI/Excel to support business reporting

Education

- **Bachelor's of computer science**, Arab academy for science and technology ,2024
 - Major: Computer Science **GPA : 3.3**

Experience

- **junior Data Engineer** Ministry of Communications and Information Technology (MCIT) – Digital Egypt Pioneers Initiative (DEPI) December 2025 – Present | Cairo, Egypt
 - Selected for a prestigious national capacity-building initiative under the Ministry of Communications and Information Technology to train and qualify as a Junior Data Engineer.
 - Actively engaged in hands-on projects involving the design, development, and optimization of scalable data pipelines and ETL processes.
 - Building expertise in data architecture, database management, and big data technologies through structured training and practical application
 - Key Technologies: Data Architecture, PostgreSQL, ETL Development, Data Modeling, Big Data Fundamentals, Cloud Platforms, and Data Pipeline Orchestration.
- **Member at Google developer group (GDG) Aswan**
core member team (**AI and Data science**)
- **Orange Digital center (ODC) Aswan**
Deep learning Training

Technical skills

- **Data Engineer :**
python,Sql,Data pipelines,ETL,ELT,Azure Data Engineer,Big Data Processing
- **Data Analysis :**
Excel,Power bi,python,Pandas,NumPy,Matplotlib ,Seaborn,sql,Data preprocessing
- **Deep learning :**
Convolutional Neural Networks (CNNs), Image classification with Various Datasets
- **Technical:**
C++,C,Java,OOP,Git,Github

Project

- **Driver Drowsiness Detection System**
Deep learning project for final course at ODC Aswan
Using **OpenCv ,python,Dlib,Tkinter,Pygame,SciPy,Imutils**,Based on **computer vision**

• **Analysis project for Udemey dataset :**

- Dividing course subscriptions according to course category (web design, business, etc.)
- Dividing the number of subscribers by course type (paid or free)
- Dividing the most subscribed and viewed courses
- Dividing the courses that generated the most revenue by category
- Dividing the extent of subscriptions and revenue in the years from 2011 to 2017

• **Networked Dictionary System**

Engineered a reliable TCP-based communication system with a custom Java Sockets handshake for secure, loss-free data transfer. Developed a centralized, multi-threaded server to handle concurrent translation requests in real time

Integrated MongoDB for scalable data management and delivered a client with local history, export, and translation management features.

Java (Core Logic & Networking), **MongoDB**, **Java Swing** (Modern Dark/Cyan GUI), Raw TCP/IP & Sockets. This project was a deep dive into low-level internet communication, ensuring lossless, accurate packet delivery. github.com/M0-Adly/TCP

- **Database Systems,for the Magdi Yacoub Foundation**
Sql database,Mapping,ERD,and connect between database with website
[link project on youtube](#)

language

Arabic : Native

English :Good

Certificates

- **Data Analytics Essentials Issued by Cisco**

Explain how the data analytics process creates value from data.

Explain the characteristics of data, including formats, availability and methods to acquire.

Transform data using analytics tools.

Analyze data using basic statistical and data preparation techniques.

Complete hands-on lab using Excel, SQL, Tableau and other tools.

- **pandas** from Kaggle & DataCamp

- **Python** from DataCamp

- **Introduction to Deep Learning** from Orange Digital Center Egypt

Introduction to Artificial Intelligence & Deep Learning

Python & essential AI libraries (NumPy, Pandas, TensorFlow, Keras)

Data preprocessing & data augmentation

Convolutional Neural Networks (CNNs)

Image classification with Various Datasets

Transfer Learning & Fine-Tuning

Model training, evaluation, and performance analysis