Maha Moftah

AI & Machine Learning Engineer

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📍 Cairo, Egypt

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Profile

Passionate AI and Machine Learning Engineer. Have a robust knowledge in AI, Machine Learning, Deep Learning, Computer Vision, Natural Language Processing and Generative AI. Dedicated to ongoing learning in AI. Very interested in working on new, diverse, challenging and real-world projects to gain huge experience.

Education

10/2023 – 07/2024
Giza, Egypt

9-Month Diploma, Professional Training Program, AI and ML Track,
Information Technology Institute (ITI), Smart Village Branch

Projects

- **Speech to Speech Avatar** ⧉
  Tools: NVIDIA Omniverse Audio2Face, HuggingFace, Ollama API, LangChain, Gemini API, Groq API, OpenAI API, Pinecone, FAISS, Azure.
- **Retinal Vessels Segmentation** ⧉
  Tools: PyTorch, TensorFlow, Segmentation-Models, Flask
- **Arabic Dialect Detection** ⧉
  Tools: TensorFlow, Scikit-learn, SpaCy, Optuna, Flask, Render
- **Employee Burnout Rate Analysis** ⧉
  Tools: Scikit-Learn, Pandas, Plotly Express, Dash
- **Gender Differences in Choosing Jobs and Departments on Glassdoor** ⧉
  Tools: Pandas, SciPy, NumPy, Seaborn.
- **Bank Customer Segmentation** ⧉
  Tools: Pandas, NumPy, Matplotlib, Scikit-learn.
- **Movie Recommendation System** ⧉
  Tools: Factorization Machines, Scikit-learn, PyTorch, Pandas, Dash.
- **Toxic Comment Classification** ⧉
  Tools: NLTK, SpaCy, Gensim, Scikit-learn, Optuna

08/2019 – 07/2023
Cairo, Egypt

Bachelor of Computers and Artificial Intelligence, *Helwan University*
- Cumulative GPA: 3.93, Excellent with Honors.
- Graduation Project: A+

Professional Experience

10/2024 – 03/2025
Cairo, Egypt

Machine Learning Intern, *Si-Vision* ⧉
- FastAPI, Python, REST APIs, Async Programming, API Testing (Postman)
- MongoDB, Qdrant, Weaviate, AWS (S3)
- OpenAI, Perpelaxity, DeepSeek, LangChain, Prompt Engineering, RAG
- Microservices Architecture, Design Patterns
- Chatbot Development, Agentic AI (Multi-Agent), RBAC (Role-Based Access Control)

Projects

Chatbot Development ⊡
- **Tools:** RAG, Gemini, LangChain, Qdrant, MongoDB, React JS, FastAPI

Customer Churn Segmentation ⊡
- **Tools:** Pandas, NumPy, Scikit-learn, SciPy, Optuna

Homonyms Problem in Sentiment Analysis ⊡
- **Tools:** Pandas, Scikit-Learn, TensorFlow, RE, Groq, Transformers

Arabic POS Tagging ⊡
- **Tools:** Pandas, Scikit-Learn, TensorFlow, Networkx

Courses

04/2024 – 04/2024	**AWS Academy Machine Learning Foundations,** *AWS Academy* ⊡	
02/2024 – 03/2024	**AWS Academy Cloud Foundations,** *AWS Academy* ⊡	
09/2022 – 10/2022	**Artificial Intelligence Intern,** *National Telecommunication Institute* ⊡	
05/2022 – 07/2022	**Machine Learning with scikit-learn,** *Datacamp* ⊡	
07/2020 – 09/2020	**SQL Fundamentals Track,** *Datacamp* ⊡	

Technical Skills

Programming
Python, C, C++, Java, OOP, Data Structures, Problem Solving, PHP, HTML, CSS, Javascript

ML/DL Libraries
Scikit-Learn, XGBoost, TensorFlow, PyTorch, Keras

Data Science
Data Exploration, Data Preprocessing, Feature Engineering, Data Visualization

Natural Language Processing (NLP)
NLTK, SpaCy, Gensim, Speech Recognition.

Databases
SQL, NoSQL

Big Data
Hadoop, PySpark, Airflow, Hive, Kafka

MLOps
Docker, DVC, MLflow

Others
AWS, Git, GitHub, Linux, Selenium, UiPath

Python Libraries
NumPy, Pandas, SciPy, Matplotlib, Seaborn, Plotly, Pickle, Optuna, Qiskit

Mathematics
Linear Algebra, Probability, Statistics

Deep Learning Architectures
CNN, RNN, LSTM, GRU, VAE, GAN, Transformer

Computer Vision
OpenCV, YOLO, Digital Image Processing

LLM
RAG, CAG, CoT, HuggingFace, LangChain, Vector DB, Prompt Engineering

Time Series
Analysis, Forecasting

Development & Deployment
FastAPI, Flask, Streamlit, Render

Languages

Arabic

English