

Mario Youssef Milad

Location: Alexandria, Egypt | Email: marioyoussef367@gmail.com | Phone: +20 127 0809 860
| LinkedIn: [linkedin.com/in/mario-youssef-624a24280](https://www.linkedin.com/in/mario-youssef-624a24280) | GitHub: github.com/Mario-Youssef

Summary

AI & Data Science Engineer graduating Jul 2025 with 10+ academic projects applying LLMs, RAG, and predictive modeling. Specialized in building intelligent systems across NLP and Data Science using Python, TensorFlow, LangChain, and cloud tools like AWS.

Education

Arab Academy for Science, Technology & Maritime Transport (AASTMT) Alamein, Egypt

Bachelor's in Artificial Intelligence Oct 2021 – Jul 2025

- **Major:** Data Science and Business Intelligence
- **GPA:** 3.4/4.0 (Very Good)
- **Related Coursework:** Data Structures, Machine Learning, Deep Learning, Cloud Computing, Statistics, Big Data Analytics, Data Mining, Data Warehousing.

Projects

Smart Learning with AI in Augmented Reality – Graduation Project Oct 2024 - Present

- Developed a smart AR-based educational assistant that narrates Google Slides and answers voice questions using a RAG pipeline (Gemini and Chroma). Integrated Whisper for STT, ElevenLabs for TTS, and connected MongoDB with the Google Slides API for dynamic learning.
- **Tools:** Unity, Gemini, Whisper, ElevenLabs, MongoDB, Streamlit, Chroma, Google Slides API

Multimodal RAG Chatbot Nov 2024 - Jan 2025

- Built a versatile chatbot capable of handling PDFs, CSVs, and images, combining Gemini/Ollama LLMs with Chroma for context-aware responses. Added Moondream for image Q&A and enabled multi-turn memory in an intuitive web interface.
- **Tools:** LangChain, Ollama, Streamlit, Whisper, Chroma, Pandas

Walmart Sales Forecasting Apr 2025 – May 2025

- Performed advanced forecasting of weekly sales data using both traditional statistical (SARIMA) and deep learning (LSTM) models. Conducted seasonal decomposition, stationarity testing, and evaluated models using MSE. Clustered departments using Dynamic Time Warping to discover trend similarities.
- **Tools:** statsmodels, Keras, tslearn, matplotlib

Shakespeare Search Engine

Apr 2025 - May 2025

- Built a mini search engine for 44 Shakespeare plays using inverted index and BST for Boolean queries, added spell correction, and applied TF-IDF ranking with PyTerrier. Evaluated on 40+ queries using precision and recall.
- **Tools:** PyTerrier, Python, NLTK

Airline Delay Prediction

Dec 2023 - Feb 2024

- Created an end-to-end machine learning workflow that predicts flight delays based on weather, timing, and historical trends. Data stored and accessed through MongoDB; visualized results and interactions via Streamlit UI.
- **Tools:** MongoDB, Streamlit, Scikit-learn

Job Market Analysis

Jul 2024

- Analyzed 9,500+ job listings to reveal demand patterns in data roles. Designed a Power BI dashboard with filters, slicers, and KPIs. Identified top hiring companies, salary distributions, skill frequency (Python, SQL), and changes in hiring trends from 2017–2021.
- **Tools:** Power BI, DAX, Slicers, TreeMaps, KPIs

Certifications

- Machine Learning Training – Information Technology Institute (ITI), Egypt
- AI & Applications Training – Zewail City of Science and Technology
- Machine Learning in Production – Coursera, DeepLearning.AI
- Delivering Quality Work with Agility – Coursera, IBM
- Summer Seminar on Robotics & AI – Robot Lab, AASTMT

Leadership & Activities

- Vice President, Student Union – AASTMT (2023–2024)
- Software Committee Member, AAST Robotics Club
- HR Committee Member, AAST Innovation Club
- OCS Committee Member, AAST Sky Club

Skills

- Python, SQL, JavaScript, HTML, CSS, Git, Scikit-learn, TensorFlow, HuggingFace, LangChain, Ollama, Transformers, FastAPI, PyTerrier, OpenCV, Spark, MongoDB, MySQL, Firebase, NoSQL, AWS Services, Docker

Languages

- **Arabic:** Native
- **English:** Advanced