MOAAZ ANWAR SOLIMAN

AI Engineer
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Summary

AI engineer motivated to engage in a new experience in the field of AI and machine learning, expand my knowledge horizons, and gain experience from experts on the ground. I am looking for an opportunity to gain experience from experts in this field and work on real-world projects.

Education

B.Sc. in Computer Science and Engineering *Menoufia University, Faculty of Electronic Engineering*
2019 – 2025

Technical Skills

- **Programming & Software:** Python, C++, C#, Java, Git/GitHub
- **Machine Learning / Deep Learning:** TensorFlow, Keras, scikit-learn, ANN, CNN, RNN, GANs
- **Computer Vision:** OpenCV, YOLO (v5, v7, v8), Mediapipe, Dlib, Stable Diffusion
- **Natural Language Processing (NLP):** NLTK, Scapy, LLM, LangChain, RAG
- **Deployment & MLOps:** FastAPI, Docker
- **Databases:** SQL (Analysis & Design)
- **Tools:** Jupyter, Google Colab, PyCharm, Roboflow, Hugging Face, Ollama

Projects

- **Power Optimization & Predictive Maintenance Smart System (Graduation Project - Grade: A+):** Developed an AI-powered industrial system using forecasting models, Ollama LLM for optimization, autoencoders for anomaly detection, and H2O AutoML for predictive maintenance. Deployed on Raspberry Pi 4 and ESP32 using FastAPI, Flask, and Docker.
- **AI Powered Products Search:** Built a multi-agent system with CrewAI to automate product procurement reporting by generating search keywords, scraping web details, and creating HTML reports.
- **Chief AI:** A full-stack AI-powered recipe generator. Users input ingredients via a React frontend, which sends them to a FastAPI backend. The backend uses LangChain with Perplexity API to generate recipes formatted in JSX/HTML, supporting Arabic output.
- **Football Analysis:** Utilized YOLOv5 for multi-object detection and tracking of players and the ball, and OpenCV to calculate performance metrics like speed and distance.
- **VENOM Shop Management System:** Developed a comprehensive, locally-hosted management system with Python and NiceGUI. The application includes real-time analytics, inventory and sales tracking, a specialized laser material management module, and an AI-powered chatbot.
- **Mini-Rag Application**: A lightweight retrieval-augmented generation system that allows users to upload PDF or text files and query their content directly. Includes a complete workflow with data ingestion, document parsing, context retrieval, and response generation. Built with robust validation across all steps to ensure reliable and consistent performance.

Experience

MLOps Trainee *Qafza* (10/2024 – 03/2025)
Gained hands-on training in deployment pipelines, monitoring, and scalability based on "Designing Machine Learning Systems".

IoT Trainee *Information Technology Institute (ITI)* (08/2024 – 09/2024)
Trained in sensor integration, communication protocols, and real-time monitoring.

AI Trainee *National Telecommunication Institute (NTI)* (09/2023 – 11/2023)
Completed 120 hours of intensive training in Machine Learning, Deep Learning, Computer Vision, and NLP.