MOAAZ ANWAR SOLIMAN

AI ENGINEER

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OBJECTIVE

I am motivated to engage in a new experience in the field of Al and Machine Learning, expand my horizons of knowledge, and gain experience from experts on the ground. I am looking for a training opportunity as a fresh graduated to gain experience from experts in this field and work on real-world projects.

EDUCATION

Faculty of Electronic Engineering – Menoufia University 2019 – 2025
Major: **Computer Science and Engineering**

National Telecommunication Institute (NTI) 09/2023 – 11/2023
Completed 120 hours of intensive training in **artificial intelligence**, covering machine learning, deep learning, computer vision, and natural language processing.

Information Technology Institute (ITI) 08/2024 – 09/2024
Gained hands-on experience in **Internet of Things** concepts, including sensor integration, data collection, communication protocols, and real-time monitoring systems.

Courses

Python, *HackerRank* 09/2023
Demonstrated proficiency in Python programming through problem-solving and algorithmic challenges.

AI For Everyone, *DeepLearning.AI* 10/2023
Developed understanding of AI concepts, capabilities, and societal impacts for strategic and practical applications.

Linear Algebra for Machine Learning and Data Science, *DeepLearning.AI* 11/2023
Learned essential linear algebra concepts for understanding and implementing ML and data science algorithms.

TensorFlow Serving with Docker for Model Deployment, *Coursera* 11/2023
Gained experience deploying ML models using TensorFlow Serving in Docker for scalable and efficient inference.

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning, *DeepLearning.AI* 02/2024
Acquired skills in building and training neural networks with TensorFlow for various AI applications.

Supervised Machine Learning, *DeepLearning.AI, Stanford CPD* 03/2024
Learned regression, classification, and model evaluation techniques to build and optimize predictive models.

Advanced Learning Algorithms, *DeepLearning.AI* 10/2024
Gained expertise in regularization, optimization, and advanced ML models to improve performance and reduce overfitting.

SKILLS

Programming Languages
Python, C++,C#,Java

Data Analysis
Pandas, NumPy.

Deep Learning
ANNS, CNNs, RNNS, GANs.

NLP
Nltk, Scapy, LLM, LangChain, RAG

Tools
Jupyter, google colab, PyCharm, Robowflow, Hugging Face, GPT4ALL, OLLAMA.

Version Control
Git/GitHub.

Communication
Excellent verbal and written communication skills

ML & DL Libraries
TensorFlow, Keras, scikit-learn.

Data Visualization
Matplotlib, Seaborn, Plotly.

Computer Vision
OpenCV, YOLO, Mediapipe, Dlib, Stable Diffusion.

Deployment
FastAPI, Docker.

Databases
SQL, Analysis and Design.

Problem Solving
Strong analytical and problem-solving skills.

PROJECTS

Power Optimization and Predictive Maintenance Smart System, *Graduation Project - Grade: A+*
Developed an intelligent system that leverages Al and sensor data to monitor and optimize power consumption in industrial environments. The solution predicts future electricity usage to reduce energy waste and provides real-time recommendations to enhance efficiency. It also includes a predictive maintenance module that detects potential machine failures before they occur, minimizing downtime and repair costs.

Football Analysis
- Yolov5 for training, I managed to get a model to track players, ball, referees, and goalkeepers.
- Supervision module to track objects and save all objects in dictionary.
- OpenCV for visualization and to calculate the player speed, overall distance run by the player, camera movement, etc...

Face Mask Detection
Using Transfer learning and computer vision I managed to develop a face mask detection: with this project I have raised my skills In computer vision and transfer learning.

Construction Site Safety Detection
Using the yolov8 large model to train a custom dataset that contains 16 classes including helmet, safety vest, safety boat, hat, mask, no vest, no helmet... to detect the site safety requirements.

Attendance Detector
Using Dlib to detect face landmarks and face encoding to detect some faces then record the attendance time of every person in a CSV file.

House Pricing Website
Developed a dynamic web application for predicting house prices using **HTML**, **CSS**, and **JavaScript** for the frontend, **FastAPI** for the backend, and **machine learning models** for accurate price estimation. Containerized the application with **Docker** for easy deployment and scalability.

Image Filter App
Built a desktop application with **Tkinter** for the GUI, implementing **linear filtering**, **edge detection**, and **image segmentation** using **OpenCV** for image processing.

Safety Helmet Detection
Developed a real-time safety helmet detection system using **YOLOv7** and **OpenCV** to identify helmet compliance, enhancing workplace safety monitoring.

Airline System
Built a CRUD-based airline management system in **Java** with **Apache (Derby) database** for reservations, flights, and passengers; designed system architecture with **UML diagrams** (use cases, class, sequence) to ensure clear, maintainable design.

INTERNSHIP

قفزة Qafza 10/2024 – 03/2025
Completed hands-on training in **MLOps** based on the *Designing Machine Learning Systems* book, covering ML system architecture, deployment pipelines, monitoring, and scalability best practices.

LetsGrowMore 11/2023 – 11/2023
Completed a one-month internship applying **data analysis**, **machine learning**, and **data visualization** techniques to real-world projects, enhancing model accuracy and actionable insights.

TechnoHacks EduTech 10/2023 – 10/2023
Completed a one-month internship focusing on **data cleaning**, **exploratory data analysis**, and **visualization** to derive meaningful business insights from datasets.

LANGUAGES

- Arabic
- English