Amr Alaa Kahla

AI Engineer

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github.com/Amrokahla Military status: Served

Profile

AI Engineer looking to grow in a dynamic, professional environment focused on advanced AI. Passionate about building intelligent systems and solving complex problems through data-driven solutions.

Education

9-Month Diploma (ITI) Information Technology Institute, (MCIT) Ministry of Communications and Information Technology, AI Track, *Mansoura Branch* 10/2024 – present

Bachelor in Mechatronics Engineering, *Mansoura University* 2017 – 2022
Graduated from Faculty of Engineering, Mechatronics department with a 3.3 GPA (Very Good)

Professional Experience

Tekatech, *Programming and Robotics Instructor* 04/2024 – 10/2024
Instruct and mentor students in robotics, focusing on hands-on programming, applications, mechanical design, and automation system. Particibate in international competitions.

Technical Skills

Machine Learning	**Deep Learning**	**Computer Vision**	**NLP**
Time Series	**Python**	**Pytorch**	**Tensorflow**
Sklearn	**C++**	**OOP**	**Opencv**
Data processing	**Data Analysis**	**Data Visualization**	**Web Scrapping**
mysql	**GIT**	**Database**	**NoSQL**
MongoDB	**Transformers**	**LLM**	**Recommender Systems**

Courses

Deep Learning Specialization, - *By Deep Learning.AI*

Advanced Computer Vision techniques with Tensorflow, - *By Deeplearning.AI*

Data Analysis and Visualization with Power BI, - *By Microsoft*

Mathematics for Machin learning, -*By Deeplearining.AI*

Projects

Transformer Implementation with Deployment
Implemented a Transformer model from scratch in PyTorch for educational purposes.Includes multi-head attention, positional encoding, and support for classification/regression.Features attention visualization with Streamlit for hands-on experimentation.

lung CT-Scan Segmentation
Developed a lung CT scan segmentation model using TensorFlow and U-Net architecture.The model detects lung regions by applying convolutional layers, skip connections, and upsampling for precise segmentation.Trained on labeled CT scan datasets, achieving accurate segmentation for medical image analysis.

Hate Speech Classification
Built a hate speech classifier using NLP and machine learning.Preprocessed text, applied TF-IDF or embeddings, and trained models like Logistic Regression or BERT.Evaluated using accuracy and F1-score.Supports automated content moderation.

Text Analysis and Clustering
Unsupervised learning is used to cluster similar text data. The text is preprocessed using techniques like tokenization and stopword removal. It is then converted into numerical vectors using TF-IDF or embeddings. Clustering is performed using models like K-Means, with evaluation via silhouette scores and a modular, well-logged pipeline.

Sign Language Translator
Developed a real-time hand gesture recognition system using MediaPipe and OpenCV for data collection and preprocessing.Trained a TensorFlow/Keras model to classify sign language gestures, optionally using a CNN architecture.The system uses a webcam for live detection and translates gestures into text output.

Self-Driving Robot, Hand Gesture detector(Graduation Project: Assistant Robot)
Built an assistant robot that tracks its owner using hand gestures, localization, and obstacle avoidance.Hand gestures are detected in real-time using CVzone's HandTrackingModule with five predefined commands.Obstacle avoidance is handled by a YOLOX model fine-tuned on 80 COCO classes.These components enable the robot to follow its owner while navigating safely around obstacles.

Certificates

Google Data Analytics Professional Certificate
- By Google

Deep Neural Networks with PyTorch
- By IBM

Awards

Instructors Codeavour Annually Competetion (First Place), *Codeavour Egypt* 2025

Personal Skills

- Problem Solving
- Analytical Thinking
- Adaptability
- Leadership
- Collaboration
- Presentation Skills
- Communication
- Research Skills
- Time Management
- Decision Making

Languages

Arabic: Native • **English:** Fluent