## **Omar Ayman Elgemaey**

#### **Profile**

Al Engineer with experience in building machine learning and deep learning models. Skilled in Python, TensorFlow, PyTorch, and data handling tools. Worked on projects involving computer vision, NLP, and predictive analytics. Able to train, test, and deploy models for real-world use. Fast learner, problem-solver, and team player.

#### **Education**

## 9-Month Professional Diploma, Artificial Intelligence and Machine Learning Track

 (ITI) Information Technology Institute ,(MCIT) Ministry Of Communications And Information Technology 10/2024 – 06/2025

#### **Faculty of Engineering - Mansoura university**

2019 - 2024

- Bachelor in Electronics and communication
- Cumulative Grade: Very Good with honor
- Graduation Project Grade: Excellent

## **Projects**

# D.E.B.R.I.S (detection and exploration bot for rescue, investigation and survival) $\ensuremath{\square}$

- Developed a real-time human detection system using AMG8833 thermal sensor and ESP32 camera.
- Designed and implemented a convolutional neural network (CNN) to detect human or not human, achieving detection accuracy of over 90%.
- Designed a real-time object detection system utilizing YOLOv8 on an ESP32 camera, achieving high accuracy in dynamic environments.

## **Twitter Hate Speech Classification ☑**

- Built a machine learning model to classify tweets as hate speech or normal.
- Applied and compared NLP techniques: TF-IDF, Word2Vec, GloVe
- Achieved 93% accuracy on real-world Twitter data

#### **SMS Classification**

• Used Naive Bayes Algorithm to build model to train it to detect spam SMSs, achieving detection accuracy of over 97%.

#### **Technical skills**

#### **Programming languages**

• Python, C++ (oop), SQL

#### Machine learning and deep learning

Scikit-Learn, Pandas, NumPy, Tensorflow, pytorch, OpenCV

#### **Courses**

Deep Learning Specialization, Coursera (online)	2023
Machine Learning Specialization, Coursera (online)	2023
Python Programming, Udacity (online)	2022
CISCO CCNA (Mansoura university)	2021

## **Internships**

PADS Professional.

Mentronix	07/2023 - 09/2023
<ul> <li>Gained hands-on experience in PCB design using Siemens</li> </ul>	Cairo

### **Egyptian Electricity Transmission Company**

 Develop hands-on experience in the design, testing, and maintenance of electrical systems, with a focus on safety and efficiency.

#### 07/2022 - 09/2022

## **Extracurricular Activities**

### Target team Mansoura, team member

 Charity, event planning and voluntary team at Mansoura University.

## 2019 – 2023

## **Enactus, Mini Dollars Project member**

 International nonprofit organization dedicated to inspiring students to improve the world through entrepreneurial action.

#### 2017 - 2019

#### **Personal Skills**

Communication skills	Time Management
• Creativity	Leadership
• Teamwork	Problem-Solving(Proficient)

## Languages

Arabic (Native)

• English (Fluent)