# **Mohamed Atwan**

# DATA SCIENTIST | NLP SPECIALIST

Egypt, Cairo | +20 155 120 9560 | Mo7amed3twan@gmail.com / Mohamed.Atwan@studentambassadors.com

 LinkedIn
 : linkedin.com/in/mo7amed3twan

 Kaggle
 : kaggle.com/mo7amed3twan

 GITHUP
 : github.com/MO7AMED3TWAN

# Summary "We Can Change the World Through the Data"

Results-driven Data Scientist with 2 years of experience in Machine Learning, Deep Learning, Natural Language Processing, and Data Science, skilled in extracting insights and building data-driven solutions with Focusing Now In The AGENTIC AI & LLMS.

Proven track record of Leading a Team to a top 5 in MTC-AIC2 AI Competition by leveraging Deep Learning and advanced modeling techniques in Speech Recognition Systems. And Leading Other Team to Top 8 in Huawei Spark Infinity North Africa 24 Competition by leveraging AI Techniques In Our Supply Chain Solution That We Introduced it.

Actively engaged in **community knowledge-sharing** as a **BETA Microsoft Ambassador In Microsoft & Huawei Cloud Ambassador**, with a focus on fostering **collaboration** and **innovation** in **data science**, **AI and Cloud Computing Areas**.

# Education

Bachelor's Degree of Science in Artificial Intelligence, Kafr Elsheikh University

2021 - 2025

Specialized coursework in Machine Learning, Deep Learning, Data Science, Cloud Computing

# Experience

#### Shabab Mobtakeron (Under Supervised Of Ministry of Youth & Sports)

AI Instructor (Part - Time)

October 2024 - Present

- Deliver interactive lectures on AI and deep learning concepts.
- Monitor students' progress through assignments and projects.
- Supervise and guide students in their graduation projects.
- Track and assess students' performance to provide feedback.
- Assist students in troubleshooting technical issues in their projects.

## Shabab Mobtakeron (Under Supervised Of Ministry of Youth & Sports)

**Technical Support & Organizer (Part - Time)** 

October 2024 – Present

- Provide technical support during events, activities, and workflow to ensure smooth operations.
- Organize events and training sessions while coordinating trainees' schedules efficiently.
- Assist participants in troubleshooting and resolving technical issues for a seamless experience.
- Improve the training environment by managing logistical and organizational tasks.

## **Information Technology Institute (ITI)**

**Business Intelligence Development Trainee (Full - Time)** 

July 2024 – September 2024

- Gain experience in data warehousing, advanced SQL, Power BI, and Tableau.
- Design and optimize data warehouses for efficient management.
- Create an interactive dashboards to provide actionable insights.
- Applied business intelligence tools {PowerBI-SSMS-SSIS-SSRS} to solve business challenges.

#### **Digital Egypt Pioneers Initiative (DEPI)**

Data Engineering Trainee (Full - Time)

July 2024 - October 2024

- Master SQL for data management and optimization.
- Design scalable data warehouses for efficient storage and retrieval.
- Gain hands-on experience in Python for data processing and automation.
- Applied machine learning concepts and MLOps tools like MLflow and Hugging Face.

# **Volunteering Locally**

# **IEEE Kafr Elsheikh Branch**

Head of Natural Language Processing (Part - Time)

October 2024 - February 2025

- Defined project roadmaps, ensuring team expertise in RNNs, LSTMs, GRUs.
- Mentored team members, designed training materials, and assessed skills in Machine learning, Deep learning and NLP.
- Collaborated with Students to build scalable pipelines for large-scale text processing (Sentiment Analysis Solution Both Arabic/English).

#### Microsoft Learn Student Ambassadors, KFS Branch

Database Administrator (Part - Time)

April 2023 - September 2024

- Manage the club's database infrastructure, ensuring optimal performance and data integrity.
- Design and optimize schemas for scalability and efficiency.
- Implement monitoring solutions to ensure continuous system availability.
- Collaborate with other teams to deliver tailored database solutions and troubleshooting support.

#### Microsoft Learn Student Ambassadors, KFS Branch

## Head of Data Engineering (Part - Time)

September 2024 - March 2025

- Developed and executed the strategic roadmap for the Data Engineering track.
- Led and mentored a team of student mentors, ensuring effective execution of learning objectives.
- · Fostered a collaborative, educational environment and provided ongoing guidance and support.

# **Volunteering Globally**

# **Huawei Campus Ambassador**

December 2024 – Present

I Actively work to **Promote Huawei Developer Certifications and other educational programs across universities**. in addition to **Organize and participate** in **tech events** such as hackathons, workshops, and seminars. and **Build and manage a community of students** interested in **cloud computing**, **AI**, **and other emerging technologies**.

#### Microsoft Learn Student Ambassadors

## Alpha then Beta Ambassador

September 2024 - Present

I actively work to **empower students with advanced technology skills**. I <u>focus on areas such as</u> **Data Science**, **Artificial Intelligence**, and **Cloud Computing**, with a commitment to **sharing knowledge** through **workshops**, **events**, and **collaborative projects**. My role allows me to collaborate with fellow students to **leverage technology to solve real-world problems**, while continuously learning and growing alongside a global community of innovators.

# **Projects**

#### **Diabetes Prediction and Management System**

September 2024 - December 2024

Team Leader That Developed an AI-powered solution to improve diabetes diagnosis and management

- Team Beauer That Beveroped and 12 powered solution to improve diabetes diagnosis and management
- Computer Vision for Early Detection: Applied a transformer-based model to analyze retinal images and detect early signs of diabetic retinopathy.
   Risk Stratification Model: Implemented a machine learning model to assess diabetes risk based on health metrics, offering personalized recommendations.
- NLP-Based Medical Chatbot: Designed an AI-driven chatbot to provide patients with timely health information, answer questions, and offer support.

#### **Automatic Arabic Speech Recognition (MTC-AIC2 – 5th Place)**

May 2024 - September 2024

Developed a Deep Learning-based Speech-to-Text system using DeepSpeech 2 (NVIDIA) for Modern Standard Arabic & Egyptian dialects in real-world noisy environments, And we Ranked 5th in the MTC-AIC2 competition, competing against top AI teams.

- Designed a robust Automatic Speech Recognition (ASR) system capable of handling noisy speech data from movies, street
  conversations, and non-standard Arabic dialects.
- Developed a DeepSpeech 2-based architecture using CNNs & Combination (GRU & LSTM) for high-accuracy transcription.
- Applied advanced signal processing: noise reduction, silence removal, and data augmentation to enhance recognition accuracy.
- Built custom preprocessing pipelines for transcript cleaning, feature extraction (MFCCs, Spectrograms), and model training.
- Overcame computational limitations by leveraging cloud computing (Colab Pro) for large-scale model training.

Additionally, there is more work available on my GitHub, where shared several projects related to Data Science | Machine Learning & Deep Learning | Natural Language Processing (NLP)

# Courses

Assessment for Data Analysis and Visualization Foundations – IBM

October - 2023

Introduction to Data Analytics –

Excel Basics for Data Analysis – IBM

October – 2023

Data Visualization and Dashboards with Excel and Cognos –

Python for Data Science, AI & Development – IBM

Machine Learning Specialization – Stanford University & DeepLeaning.AI

October – 2023

April – 2024

# **Skills & abilities**

#### **Version Control & Deployment**

Proficient in Git, GitHub, and Docker for version control, code management, and containerization, ensuring seamless deployment and collaboration.

## **Machine Learning & Statistical Modeling**

- Experienced in supervised and unsupervised learning techniques for predictive modeling.
- Knowledgeable in Deep Learning models, including CNN, RNN, and Transformer architectures for complex data modeling.

#### Natural Language Processing (NLP)

· Skilled in fine-tuning NLP models for LLMs like BERT, GPT-2, QWEN, Phi and ollama to solve language-based tasks.

#### **Data Management & Programming**

- Python: Expertise in Exploratory Data Analysis (EDA), NLTK, Spacy, PyTorch, TensorFlow, and Transformers for data analysis, manipulation, machine learning, and deep learning tasks.
- Databases: Skilled in SQL Server, PostgreSQL, and MySQL for efficient data management and retrieval.

#### **Cloud Analytics**

- Proficient in Azure Data Factory, Azure Synapse Analytics, and Azure ML for orchestrating large datasets, transforming data, and deploying machine learning models.
- Experienced in leveraging cloud-based solutions to automate workflows and enable scalable, efficient analytics and machine learning processes.

#### **Data Pipeline Development**

Skilled in ETL and ELT processes to efficiently extract, transform, and load data for analysis and reporting.

#### **Data Analysis & Visualization**

Proficient in Power BI, Tableau, and Excel to create clear, impactful visualizations that drive data-driven decision-making.

#### **Soft Skills**

Leadership | Emotional Intelligence | Communication | Team Working | Problem Solving

#### Languages

English: B1 (Intermediate) | German: A1 (Beginner)