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 <u>Leading a Team to a top 5</u> in **MTC-AIC2 AI Competition** by leveraging **Deep Learning** and **advanced modeling techniques in Speech Recognition Systems.** And <u>Leading Other Team to Top 8</u> 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

- **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)

Certificates & Licenses

Huawei Certified ICT Associate – Artificial Intelligence (HCIA-AI)
Issued Mar 2025 · Expires Mar 2028 Credential ID: 010102001855810026291409

HCCDA-Tech Essentials – Huawei Cloud Certification
Issued Jan 2025 · Expires Jan 2028 Credential ID: HWDCTEDA364117

Courses

Assessment for Data Analysis and Visualization Foundations – IBM	*October - 2023*
Introduction to Data Analytics –	*October - 2023*
Excel Basics for Data Analysis – IBM	*October – 2023*
Data Visualization and Dashboards with Excel and Cognos –	*October – 2023*
Python for Data Science, AI & Development – IBM	*December - 2023*
Machine Learning Specialization – Stanford University & DeepLeaning.AI	*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)