# Moaz Nasser Abdelaziz

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kaggle

#### **EDUCATION**

**Bachelor of Computers and Artificial Intelligence Helwan University** 

Oct 2020 - Jul 2024

GPA: 3.36, With Honor degree

### GraduationProject: Microsoft Malware Prediction Using Machine Learning

 Analyzed the Microsoft Malware Prediction Challenge dataset (9M records) using advanced preprocessing and machine learning models like LightGBM and CatBoost, boosting accuracy from 68% to 81%. Secured AXA sponsorship for 500 servers, earning an A+ for the graduation project Deployed the solution using FlaskAPI. Click here to view the project video for a detailed demonstration.

#### **WORK EXPERIENCE**

# **Artificial Intelligence Trainee**

#### National Telecommunication Institute (NTI) - Cairo, Egypt

Undergoing a 4-month intensive program covering AI concepts, machine learning, deep learning, Computer Vision, NLP, Data Engineering, Reinforcement Learning, MLOps, big data analytics, and career development skills through hands-on projects and industry-aligned training.

# **Software Engineer Intern**

Aug 2023 - Oct 2023

Nov 2024 - present

- Gained Insight into Software Development Lifecycle: Participated in comprehensive training on the software development lifecycle, from initial design to final deployment, providing a solid foundation in software engineering principles.
- · Learned and Applied Virtualization Technology: Acquired practical knowledge in virtualization technology and Oracle Forms and Reports, enhancing technical skills in managing and deploying virtual environments.

#### SELECTED PROJECTS

#### -Al driven furniture recommendation (Final Project @NTI) &

- Leveraged LLM prompt engineering and RAG to analyze user conversations and recommend optimal furniture from our database or, if declined, via (CrewAl Agents) web scraping and searching(TavilyClienttool).
- Integrated AR for real-time 3D furniture visualization and personalized recommendations, including complementary pieces, within a mobile app(Kotlin).
- We are working on fine-tuning the model to enhance performance.

#### -Customer Churn Prediction for Banking System &

 Implemented a machine learning(SVM,logistic regression) model to predict customer churn, leveraging various algorithms to identify at-risk customers and enhance retention strategies.

# -Jane Street Real-Time Market Data Forecasting: 🔊

· Participated in a Kaggle competition forecasting real-time market data for Jane Street, achieving a top 15% ranking. Developed a ResNet-based architecture adapted for time series data.

# -Book-Based LLM-Powered Telegram Chatbot(LangChain)

• Built a RAG pipeline using LangChain to retrieve text from books and provide context-aware responses via an LLM-integrated Telegram chatbot. Enhanced accuracy with prompt engineering for dynamic user interaction.

# -Text Similarity Project Using Siamese Architecture

• Developed a text similarity model using Siamese neural networks to measure the semantic similarity between text pairs, achieving high performance in NLP tasks.

# -YOLO v8 Object Detection GUI Application ⊗

• Developed an interactive Python-based application leveraging YOLO v8, OpenCV, and Tkinter for real-time object detection. Integrated webcam and video file processing with dynamic filtering of object classes, enabling users to visualize detection results through an intuitive GUI.

# -Power BI Sales Analysis **⊘**

• Designed an interactive dashboard to visualize sales trends, track key metrics, and derive actionable insights for decision-making.

#### **RELATED COURSES**

- NLP: Probabilistic models, sequence modeling, attention mechanisms (DeepLearning.AI).
- Advanced AI: Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG).
- Customization Techniques: Fine-tuning & prompt engineering for domain-specific applications.
- Foundations: AWS Academy Machine Learning Foundations; Exploratory Data Analysis; Numerical Optimization.
- Pattern recognition, PCA, supervised/unsupervised machine learning, time series analysis.
- Deep Learning: CNNs, RNNs (and variants), GANs; techniques for improving deep neural networks.
- Cloud & Al Platforms: Cloud Computing for Al (HCIA certified).
- Al Agents: Concepts for building autonomous Al systems. (DeepLearning.Al)

#### **SKILLS**

- Programming Languages: Python, C/C++, Java, HTML/CSS
- Data Engineering Skills: SQL, Data Modeling ,ETL using SSIS ,SSAS , spark
- Libraries, platforms: Numpy, Pandas, scikit-learn, TensorFlow, openCV, Flask API
- **DataVisualization**: Visualization using PowerBI , Looker Studio, Python Libraries (Matplotlibseaborn)
- **Software System Engineering:** Solid principles ,OOP, Data structure ,OCL, Clean Code,...)
- Awards/Activities: <u>AWS DeepRacer(TOP 10)</u>, Skilled in problem solving (i participated in ICPC),BlackHat MEA CTF qualified to final, IEEE Victories CTF
- **Technical Tools & Platforms:** Docker, and Postman; experienced in using HuggingFace for deploying and fine-tuning various pretrained models (e.g., YOLO),Familiar with Linux OS.

#### **PERSONAL INFO**

Military service Status:Exempted