







# Aya Sabry Mohamed

ML Engineer & Data Scientist

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## Work Experience

### Artificial Intelligence Teaching Assistant

Cairo University

March 2024 – August 2024

Giza, Egypt

### Freelance AI Prompt Engineer

December 2023 – March 2024

Remote

- Remote work is done as an AI Prompt Engineer, with a specialization in the crafting and refining of AI prompts for various applications.
- Expertise in natural language processing (NLP) and machine learning (ML) is utilized to design prompts that aim to optimize model performance and enhance the user experience.

### Flutter Intern

UN Women Egypt and UNIDO Egypt

August 2023 – November 2023

Remote

- Successfully completed a comprehensive four-month training program on Flutter development under the guidance of industry experts

### Machine Learning Instructor

National Telecommunication Institute (NTI).

July 2023 – August 2023

Remote

## Professional training

### Oracle Fusion Apps Developer

Global academy

Jan 2025 – Present

Giza

### Microsoft Azure Administrator Internship

ITI Intensive Code Camp, Information Technology Institute

June 2024 - Sept 2024

Cairo University


- Implemented, managed, and monitored identity, governance, storage, computing, and virtual networks in a cloud environment.

### Data Analysis Internship

ITI Intensive Code Camp, Information Technology Institute

Nov 2022 - Mar 2023

Ismailia


- Implemented data cleaning and validation techniques on existing spreadsheets, enhancing data accuracy and integrity for robust management and analysis.
- Employed advanced statistical methods and data visualization tools to analyze complex data sets and identify valuable trends. [Intern tasks.](#) 

### Machine Learning Mentorship Program

Mentored by Eng. Amr Samir, Senior Software Engineer at Google Zurich

October 2020 – August 2021

Remote

- Gained comprehensive knowledge of machine learning fundamentals through the Fast.ai course, delving into advanced topics such as NLP breakthroughs, including Transformers, and GPT-3.
- Received a commendable recommendation letter from Eng. Samir. 

### Artificial Intelligence Intern

Huawei

June 2020 – August 2020

Remote

Acquired foundational knowledge in AI, machine learning, deep learning, and AI application development, specializing in Huawei's full-stack and all-scenario AI solutions.

## Accomplishments

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**Publications:** Rana Abdullah, AyatAllah Sabry, [Amr M. Mahmoud](#), Maha M. Galal.

**"Smartphone-Based Colorimetric Determination of Dopamine Using Modified Plasmonic Gold Nanoparticles via the Implementation of Machine Learning Algorithms."** (*paper under review*)

- Developed with the team from the Faculty of Pharmacy an advanced machine learning model for image analysis to accurately predict dopamine levels in a solution.
- Leveraged gold nanoparticle-assisted techniques to enhance the accuracy of dopamine level prediction.
- Achieved an exceptional accuracy increase from 83.5% to 99.5% in concentration quantification through mobile image capture under varying lighting conditions. [Demo](#)

## Education

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**Cairo University**, B.S. in Computers and Artificial Intelligence

September 2018 - July 2022

**Major:** Artificial Intelligence

- Graduated with **Distinction** with Honors, ranked **second** in a class of 75 students in the Artificial Intelligence department, with a GPA of **3.56/4**.
- **Relevant courses:** Brain-Computer Interfaces, Supervised Learning, Deep Learning, Generative models, Natural Language Processing, Reinforcement Learning, and Statistical Machine Learning.
- **Graduation Project:** Text to Image Generation using the **VQGAN-CLIP** model plus a **taming transformer** and **SBERT**, awarded grade **"A+"**

**Cairo University**, Pre-Master's Student in Artificial Intelligence

February 2024 - Present

- I am currently pursuing advanced studies in Artificial Intelligence as part of the Pre-Master's program.

## Certification

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- **Azure Administrator Associate** 
- **AWS Certified Cloud Practitioner (AWS)**
- **Professional Certificate in Data Analytics (Google – Coursera)**

## Technical Skills

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- **Programming Languages:** Dart, Python, PLSQL, JavaScript, and C++; familiar with Java and MATLAB.
- **Frameworks:** Flutter, TensorFlow, Turi create, Rasa, OpenCV and PyTorch.
- **Databases:** Oracle SQL, Postgres SQL, and MongoDB.
- **Data Visualization:** Excel, Matplotlib and Seaborn.
- **Other Skills:** Lang Chain, ChatGPT, Bard, HTML, CSS, Linux, Docker, Streamlit, Git and GitHub
- **Soft skills:** communication, teamwork, leadership, strong research, and analytical capabilities.

## Projects

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### Flutter E-commerce Project

- Flutter-based e-commerce project focused on laptops. Responsibilities included frontend development, state management, favorite feature implementation, shopping cart functionality, and API integration.

### E-commerce Cosmetic Store Recommender System

- Build recommender system for big data (with more than 8 M rows) based on purchasing behavior data for an ecommerce cosmetic store.
- This system utilizes the apriori algorithm and collaborative filtering to recommend brands to customer base.

### Arabic Entity Name Recognition Tool

- Engineered an advanced tool for Arabic Entity Name Recognition utilizing a pre-trained Word2Vec model and LSTM.

### Review Sentiment Analysis

- Conducted sentiment analysis on the "Multi-Domain Sentiment Dataset (30 MB)" using TF-IDF techniques.

### Greenhouse-by-Fuzzy-logic (*Python, MATLAB*)

- Pioneered the use of SDLC processes to drive the development of a predictive watering system for greenhouses, resulting in 30% greater resource utilization and operational efficiency.