

# Menna Mohamed Abd El Gawad

## MACHINE LEARNING – DATA SCIENTIST

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### Objective

Results-driven Machine Learning Engineer in developing innovative machine learning models. Proficient in Python, with a strong foundation in data preprocessing, and feature engineering. use frameworks such as TensorFlow to implement deep learning solutions. Adept at collaborating with cross-functional teams to translate business requirements into technical specifications and deliver actionable insights. Committed to continuous learning and staying updated with the latest advancements in AI and machine learning technologies

### Education

Arab Academy for Science, Technology & Maritime Transport, MS of Computer Science in Progress

Relevant Coursework: Advanced AI, Data Mining, Natural language processing, Advanced Software Engineering, Complexity Analysis, Natural language Programming

ITI Information Technology Institute, AI & ML 9month Higher Professional Diploma 2023

Arab Academy for Science, Technology & Maritime Transport, BS of Computing & Information Tech. 2022

Major: Computer Science | Minor: Information System

Cumulative GPA: 3.44/4.0

Relevant Coursework: Data Structures, Algorithms and complexity analysis, Linear Algebra, Object-oriented design, SDLC, Probability & Statistics, software development life cycle

### Experience

Optimizers Company | Data Scientist 2025 - present

- **Data Extraction & Preparation:** Extract data directly from SQL Server databases and perform rigorous preprocessing to ensure high-quality datasets for analysis.
- **Interactive Visualization:** Develop interactive desktop applications using Plotly Dash and Flask to create dynamic, real-time dashboards for data visualization.
- **Forecasting Models Integration:** Design and implement machine learning models for forecasting specific data trends, integrating predictive insights into visualizations.
- **End-to-End Workflow Development:** Build cohesive workflows that seamlessly connect data extraction, preprocessing, machine learning forecasting, and visualization, supporting strategic decision-making and automation initiatives.

Valeo Company | AI Intern 2024-2024

Implemented models using NLP and LLM to improve Jira's ticketing system providing automatic assigning and solutions

- Employed advanced ML and DL and LLM models to streamline the ticket resolution process and promote knowledge sharing among team members.
- Implemented similarity retrieval to expedite resolutions by leveraging historical ticket data, reducing reassignments and improving efficiency.

### Projects

RAG Chatbot 2025

- RAG chatbot capable of answering user questions based on information extracted from PDF documents, **Tools:** Lang Chain, Chroma DB, Gardio, GTE-Larg, Mistral AI.

Natural Language Processing with dialects Arabic Tweets 2024

- NLP Text Classification Build DL models that can predict the dialect of a given text, **Tools:** Word2vec, Doc2vec, Numpy, RNN, LSTM, GRU, Inference, Flask, nltk.

Video quality enhancement and translation 2023

- Noise reduction for low quality videos and generating a translation-like view parallel to the pitch to provide a better viewing experience for the audience, **Tools:** Python, PyTorch, Conv2D, Dense, Batch Normalization Layers

## Implementation Of machine learning, deep learning optimizers

2023

- Stochastic, Batch and Mini-batch Gradient Descent for Linear Regression, Momentum, NAG and RMSPROP, Adam, Newton, BFGS optimizers, **Tools:** Numerical Optimization, Linear Algebra, Pandas, Data Visualization

## Mobile App to Assist People with Mobility Disability to Enhance Daily Life Routine,

2022

- A mobile app was developed to enhance the lives of individuals with mobility challenges. The app provides accessibility information tailored to wheelchair users, connects them with volunteers for transportation and support, and offers opportunities for sports activities. This solution significantly improved independence and quality of life for people with disabilities, **Graduation Project Grade: A, Tools:** Dart Flutter, Firebase, Android studio, Image Recognition.

## Training & certificate

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- **Digital Egypt Generations, DEPI, Generative AI Professional, 2024**
- **Valeo, Valeo/BE Women Hackathon: innovative tech solutions, 2024**
- **Nvidia, Deep Learning Fundamentals of Deep Learning, 2023**
- **IEEE, Cloud Computing Mini-Course Certificate. 2022**
- **APPSoft, Mobile App, 2022**

## Skills & abilities

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- Python, C, C++, Java, JavaScript, HTML, CSS, SQL, NoSQL, JSON
- Feature Engineering, Data preparation and exploration, Visualization, NIP, Computer Vision, ML pipeline, Numerical Optimization.
- Tensor Flow, Sklearn, PyTorch (Beginner), NLTK, Seaborn, Matplotlib, Dash
- PowerBI, Tableau, MongoDB, Spark, GCP (Beginner), AWS (Beginner), docker (Beginner), Flask, Postman API.
- Effective communicate, confident, Team collaboration, flexibility, Problem Solving & Design Thinking, Creativity & Innovation, Time Organization, Leadership (Leader Track AI &ML ITI Alex)