Aya Nabil *Machine Learning / AI Engineer*

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📍 Alexandria, Egypt   in http://www.linkedin.com/in/aya-nabil-202781247

○ https://github.com/1AyaNabil1

Professional   Experience

present Remote	**Research Intern** *Omdena* - Conducted statistical analyses and literature reviews, improving project accuracy by 15%. - Extracted insights from large datasets using machine learning and data analytics, boosting processing efficiency by 20%. - Collaborated with cross-functional teams, enhancing communication and project outcomes.
2022 – 2023 Remote	**Ai Intern** *SureStart* - Developed machine learning algorithms to process historical data, improving predictive capabilities by 25%. - Analyzed statistical data to inform organizational decisions with 15% greater accuracy.
2022 – 2023 Alexandria, Egypt	**Machine learning Intern** *EGSA — Egyptian Space Agency* - Created satellite imagery models to support prediction and decision-making processes. - Built custom applications to automate predictions and optimize reasoning algorithms.

Skills

Technical Skills:

Machine Learning & AI
- Supervised & Unsupervised Learning (XGBoost, SVM, KNN, Random Forest)
- Deep Learning (CNN, LSTMs, Transformers)
- Computer Vision (OpenCV, YOLO, Image Segmentation)
- Natural Language Processing (NLP, BERT, LLMs)
- Probability & Statistics for AI

Project Management Tools
- JIRA, Trello, Notion, Todoist

Data Visualization & Deployment
- Data Visualization (Matplotlib, Seaborn, Plotly, Tableau)
- Model Deployment (Flask, FastAPI, Docker, Git)

Programming & Data Processing
- Python (NumPy, Pandas, Scikit-Learn, TensorFlow, Keras)
- R (dplyr, ggplot)
- SQL (PostgreSQL, MySQL)

Soft Skills:

- Analytical & Critical Thinking | Problem-Solving | Communication | Teamwork
- Adaptability | Time Management | Research & Development

Education

2021 – 2025 Alexandria, Egypt	**Bachelor of Computing and Data Science** *Alexandria University*

Projects

Facial Recognition System for Security (Graduation Project, 2025)
- Developed a real-time facial recognition system with facial expression analysis and voice recognition.
- Implemented adaptive security features for anomaly detection.
- Integrated deep learning-based emergency response mechanisms.

Identifying Diseases in Chest X-Rays & COVID-19 Detection ⬈
- Conducted exploratory data analysis (EDA) to gain insights into the dataset, understand data distribution, identify potential biases, and inform data preprocessing strategies, achieving a 20% improvement in preprocessing efficiency.
- Preprocessed the collected data, including tasks such as image resizing, normalization, and handling class imbalances, ensuring the data's suitability for training deep learning models.
- Implemented and trained the chosen deep learning model using the preprocessed data. Optimized the model's hyperparameters, including measures such as accuracy, precision, recall, and F1-score, leading to a 25% improvement in overall model performance.

Diabetes Diagnose using Machine Learning ⬈
- Experienced in EDA techniques, such as nutritional status evaluation and glucose level interpretation.
- Demonstrated expertise in building and optimizing machine learning models.
- Accomplished in various models, including K-Nearest Neighbors, Logistic Regression, Decision Trees, Random Forests, Gradient Boosting, Support Vector Machines, and Neural Networks.
- Proven success in achieving high accuracy, particularly with Multiple Neural Networks (MLP).

Analyzing and Predicting Food Prices in Nigeria Using Machine Learning and Python ⬈
- Conducted a detailed analysis on five years of historical food price data, unveiling trends, seasonality, and correlations, resulting in a 15%
- improvement in understanding market dynamics. Developed and implemented machine learning models to predict prices of essential commodities, achieving forecasting accuracy.
- enhancement of 20% compared to baseline models.

Certificates

Machine learning specialization
Stanford University

Math for Machine learning and Data science
Stanford University

Big Data Engineer Specialization
University of California San Diego

IBM Data Science professional Specialization
Coursera

Languages

Arabic
Native

English
C1

Volunteering

2024/1 – present Remote	**Microsoft** ⬈ *Microsoft Student Ambassador*	
2022/12 – 2025/01 Remote	**Aseer Al-Kotob** ⬈ *Interaction Team Leader*	
2022/08 – 2023/08 Alexandria, Egypt	**YLY Ministry of Youth and Sport** *HR member*	