

KAREEM MOHMED MOUSSA

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SUMMARY

Analytical Junior Machine Learning Engineer specializing in classical machine learning algorithms and statistical analysis. Experienced in building end-to-end ML workflows in Python, from data wrangling to model evaluation. Skilled in implementing and optimizing classification, regression, and clustering algorithms utilizing **Scikit-learn**. Strong visual communicator, utilizing **Seaborn** and **Matplotlib** to translate complex datasets and model performance metrics into clear, understandable business insights.

PROJECTS

Breast Cancer Diagnostic Classifier | *Python, NumPy, Scikit-learn*

- **Exploratory Data Analysis (EDA):** Leveraged **Matplotlib** and **Seaborn** to visualize feature correlations, identifying key indicators like 'mean radius' and 'area' that distinguish malignant from benign tumors.
- **Preprocessing:** Applied **StandardScaler** to normalize 30+ numerical features, ensuring uniform weight distribution for model training.
- **Results:** Achieved **99% Accuracy** and **98% Recall**, prioritizing the minimization of false negatives to ensure high diagnostic reliability.
- **Evaluation:** Utilized **Scikit-learn's** classification report and Confusion Matrix to validate model performance across balanced and unbalanced data splits.

EDUCATION

Bachelor of Computer Science

- Faculty of CIS, University of Mansoura 2024-2028

SKILLS

- **Languages & Core:** Python – NumPy - Pandas (Data Wrangling & Analysis)
- **Machine Learning:** Scikit-learn (Regression, Classification, Clustering, PCA)
- **Visualization:** Matplotlib - Seaborn (EDA & Statistical Plotting)
- **Tools:** Jupyter Notebooks - VS Code
- **Languages:** Arabic (Native) - English(Intermediate)
- **Soft Skills:** Analytical Thinking - Fast Learner - Effective Communication - Problem Solving

CERTIFICATIONS & COURSES

- **Machine Learning Specialization :** Coursera (DeepLearning.AI & Stanford) | *In Progress* (Instructor: Andrew Ng)

- **Microsoft Machine Learning Track : DEPI (Digital Egypt Pioneers Initiative) | 2025**