

Mohamed Awad

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EDUCATION

City University of New York, Queens College

Expected Dec 2026

Bachelor of Arts in Computer Science

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Linear Algebra, Database Systems, Operating Systems, Calculus, Mathematical Models

TECHNICAL SKILLS

Languages: Python, SQL, Java, C++

Frameworks: TensorFlow, LlamaIndex

Tools & Platforms: Git, MySQL, VS Code

Libraries: Pandas, NumPy, Matplotlib, Sci-kit Learn

TECHNICAL EXPERIENCE

AI Automation Extern

Dec 2025 – Feb 2026

Extern, Outamation

Remote

- Built a modular, data ingestion pipeline to process 200+ page mortgage files—combining OCR, PDF parsing, and RAG techniques for intelligent data extraction.
- Developed a document retrieval system using LlamaIndex and Retrieval-Augmented Generation (RAG), optimizing precision through chunk tuning, metadata filtering, and evaluation of open-source LLMs (Mistral and Phi-2).
- Conducted an end-to-end evaluation of the document intelligence system, delivering a technical report outlining model trade-offs and optimization strategies.

PROJECTS

Credit Card Fraud Detection with Explainable AI | [Github](#) | *Python, Numpy, Pandas, Sci-kit learn, Streamlit*

- Built an end-to-end fraud detection pipeline on 1.3M+ transactions, training on Random Forest, XGBoost, and Logistic Regression to achieve a 99.53% accuracy and 0.97 ROC-AUC.
- Mitigated class imbalance using SMOTE and identified 15 high-impact features via SHAP analysis, boosting precision from 45.23% to 57.89% while improving model explainability.
- Collaborated with a team of 4 to optimize classification threshold and conducted 10-fold cross-validation to boost recall to 66.76% on a heavily imbalanced dataset.

Skin Cancer Prediction Model | [Github](#) | *Python, NumPy, Pandas, Matplotlib, TensorFlow*

- Achieved 80.05% test accuracy in classifying skin lesions by developing a Skin Cancer Prediction tool using Convolutional Neural Networks (CNN) and Logistic Regression on the HAM10000 dataset.
- Enhanced skin classification accuracy by 17% by implementing advanced architectures like ResNet-50 using TensorFlow, resulting in a 97.50% test accuracy.
- Reduced model bias by implementing data augmentation techniques and preprocessing steps using normalization and class balancing, visualizing model performance using confusion matrices in Matplotlib.

Calories Burned Predictor | [Github](#) | *Python, NumPy, Pandas, Matplotlib, Sci-kit Learn*

- Trained a mathematical model to predict the amount of calories burned during exercise among 15,000+ individuals using XGBRegressor.
- Utilized NumPy and Pandas to handle and manipulate datasets effectively, performing tasks such as data wrangling and outlier detection.
- Scripted the predictive calories burnt model and obtained a prediction accuracy of 90.04%.

SUPPORTING EXPERIENCE

Tech Fellow

Jun 2026 – Aug 2026

CodePath

- Mentored 300+ students across a 10-week technical curriculum through weekly support sessions and peer collaboration with Tech Fellows, contributing to a 95% course completion rate.