Mohamed Kamal Elsharkawy

Machine Learning Engineer

mohamed.k.elsharkawy@gmail.com 01004622244

Desouk, Kafr Elsheikh [Easy Relocated] LinkedIn Github Kaggle

SUMMARY

Passionate AI Engineer with strong experience in building, evaluating, and deploying machine learning and deep learning models. Proven ability to lead projects, collaborate with teams, and deliver impactful AI solutions. Skilled in Python, TensorFlow, Scikit-learn, and computer vision. Seeking to contribute to innovative AI projects in a fast-paced environment.

EDUCATION

9-Month Professional Diploma, Artificial Intelligence and Machine Learning Track, Information Technology Institute [ITI], Ministry Of Communications And Information Technology [MCIT] 10/2025 – present

B.Sc., Faculty of Computer and Information Sciences, Medical Informatics Program, Mansoura University 09/2019 – 06/2023

[Certificate]

- Achieved a GPA of 3.77
- Received an Excellent with Honors grade
- Ranked 3rd in my graduating class
- Graduation Project [Certificate]
  - Developed "DeepNEye" with a 10-member team for retinal disease diagnosis using the pretrained model Visual Geometry Group [VGG16]
  - Handled data collection, preprocessing, model building, tuning, training, evaluation, and deployment — achieved 99% balanced accuracy.
  - Tools: Python, JupyterLab, VSCode, Numpy, TensorFlow, Keras, Scikit-learn [Project]

INTERNSHIPS

Artificial Intelligence [AI] and Data Science – Microsoft Machine Learning Engineer Program, Association Of Management and Information Technology [AMIT], Digital Egypt Pioneers Program [DEPI] 06/2024 – 10/2024

- Acquired Technical Skills: Python, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Kaggle, VSCode, JupyterLab, GitHub, Google Colab
- Applied Skills in Real-World Projects: using diverse datasets across multiple domains [Projects]
- Acquired Non-Technical Skills: Business English, Leadership Skills, Freelancing Skills [Certificate]

Web Development using Python Framework, Information Technology Institute [ITI] 07/2022 – 09/2022

- Acquired Skills: HTML, CSS, JavaScript, Python, Django and Postgres
- Built a Blog Project with a 5-member team, handling authentication, CRUD, and email notifications. [Project]

Python for Machine Learning and Data Science, Consulting of Computers and Information Center [CCIC] 08/2021 – 10/2021

- Acquired Skills: Python, Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn
- Built a Chronic Kidney Disease Classification Project with a 2-member team, handling model selection, training, and evaluation — achieved 96% accuracy [Project]

FREELANCING EXPERIENCE

Underwater Plastic Detector [Project]
- Built a plastic object detection model using YOLO to detect plastic materials in real-time video streams, and deployed it as a REST API for client use
- Tools: Python, Ultralytics, YOLOv8s, OpenCV, Flask, Google Colab, Ngrok

Skin Cancer Classification [Project]
- Built a CNN from scratch to classify skin cancer images and deployed it as a REST API for client use.
- Tools: Python, TensorFlow, Keras, Flask, Google Colab, Ngrok

Full Featured Sign Language Recognition [Project]
- Enhanced communication between hearing and deaf communities by converting recorded sign language videos to English/Arabic text and voices to English/Arabic sign language videos, and deployed the AI model as a REST API for integration into a mobile app.
- Tools: Ngrok, Flask, Mediapipe, OpenCV, Scikit-learn, Google Colab, Pickle, Numpy, Python.

PROJECTS

Biography Clustering [Project]
- Developed an NLP pipeline to cluster similar biographies using K-Means, resulting in 3 meaningful groups. Handled text preprocessing, model training, and cluster interpretation. Deployed the model via both a Rest API (hosted on PythonAnywhere) and a web app [Endpoint] [Web App]
- Tools: Python, NLTK, Scikit-learn, K-Means, Flask, Streamlit, PythonAnywhere

Obesity Risk Classification [Project]
- Built with a 4-member team to classify individuals into obesity levels using XGBClassifier (91% accuracy). Covered the full ML pipeline and deployed the model as a web app [WebApp]
- Tools: Python, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, XGBoost, VScode, Streamlit

Credit Score Prediction [Project]
- Built a classification model to assess clients' credit levels for loan approval decisions. Cleaned and preprocessed messy real-world data, achieving 75% accuracy using a Decision Tree model.
- Tools: Python, Pandas, Scikit-learn, Decision Tree, Matplotlib, Seaborn, numpy.

TECHNICAL SKILLS

- **Programming Languages:** Python, C, C++, SQL, Problem Solving
- **Data Analysis and Data Visualization:** NumPy, Pandas, Matplotlib, Seaborn, Plotly, Power BI
- **Machine Learning and Deep Learning:** Scikit-learn, TensorFlow, Keras
- **Computer Vision:** OpenCV, Mediapipe, YOLO
- **Natural Language Processing (NLP):** NLTK, Text preprocessing
- **Model Deployment:** Flask, REST APIs, Streamlit, PythonAnywhere, Ngrok
- **Development Tools:** JupyterLab, VSCode, Google Colab, GitHub
- **Other Tools:** LabelImg, Kaggle

PERSONAL SKILLS

Communication Skills, Negotiation, Persuasion, Teamwork, Positive Attitude, Innovation

LANGUAGES

- Arabic [Native]
- English [B2]