IBRAHIM MOHAMED MAHROUS AI/ML Specialst

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Projects

Heart Disease Analysis
Performed exploratory data analysis and trained machine learning models (e.g., Logistic Regression, Random Forest, SVM) to predict heart disease risk, comparing performance metrics and visualizing results.

Barbell Exercise Tracking
Trained a machine learning model to classify and track barbell exercise types and repetitions from structured data

Garbage Classification
Built a convolutional neural network to classify waste images (TrashNet dataset) with preprocessing and augmentation; deployed an interactive demo using Flask.

TicTacToe AI
Implemented an AI agent for TicTacToe using a genetic algorithm to evolve strategies, demonstrating practical use of optimization methods.

Multi-Stage Manufacturing Process Simulation
Modeled and simulated a simplified continuous-flow manufacturing process in Python to analyze throughput and identify bottlenecks.

Python Mini Games
Created small interactive games (Blackjack, Connect-4, QuizBrain, etc.), demonstrating programming fundamentals and GUI design with Tkinter.

Mindwell_AI
Developed a mental health–focused chatbot prototype using natural language processing techniques; built and deployed an interactive web app with Streamlit for user-friendly testing

Intelligence School Management System
Developed a basic school management system with features for student records, grades, and attendance, using PHP and MySQL in a local XAMPP environment.

Profile

Passionate Data Scientist, ML/AI Specialist, and Full-Stack Developer skilled in transforming data into actionable insights and building intelligent systems. Experienced with Python, PyTorch, TensorFlow, and modern web technologies, with projects spanning machine learning, computer vision, genetic algorithms, operations research, and full-stack development. Constantly learning and innovating to create impactful, real-world solutions.

Skills

Skill	Level
Git & GitHub	●●●●●
Machine Learning	●●●●●
python	●●●●●
Data anlysis	●●●●○
statistical analysis	●●●○○
Communication skills	●●●●○
Problem-solving skills	●●●●●
NLP scientist	●●○○○

Professional Experience

trainee
maim
07/2025 – 09/2025 | Alexandria,Egypt
- Built end-to-end computer vision pipelines with reproducible workflows
- Fine-tuned YOLOv8 for real-time object detection and tracking
- Improved CNN classification accuracy using GAN-based augmentation
- Optimized and deployed models for medical and industrial applicationsDeployed an interactive demo app with Flask + OpenCV for real-world use

Education

Alexandria Universty
09/2022 – Present | Alexandria,Egypt