Farah ElMashad

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Profile

A quick learner with strong analytical thinking and a solid foundation in software development. Highly motivated to explore data analysis and artificial intelligence, eager to develop skills in machine learning, statistical analysis, and data-driven decision-making. Passionate about solving complex problems and continuously expanding my knowledge through hands-on experience and innovative projects. Seeking opportunities to learn, grow, and contribute in a dynamic environment while building expertise in AI and data analysis.

Education

Ain Shams University, Computer Science   Sept 2023 – Present

- GPA: 3.95/4.0
- **Relevant Coursework:** Computer Architecture, OOP, Data Structures, AI, Database Management Systems, Probability, Statistical Analysis

Experience

AI & Data Science Training *DEPI* – Ministry of Communications   June 2025 – Present
Microsoft Machine Learning Engineer Track

- Intensive 6-month program covering end-to-end machine learning and AI workflows using Microsoft Azure tools.
- Key topics: Prompt Engineering, Python, Data Preprocessing & Visualization, Machine Learning, Deep Learning, NLP, Computer Vision, MLOps, and Azure AI Fundamentals.

Internship *HSBC* – Cairo, Egypt   July 2024 – Aug 2024

- Collaborated on a group project analyzing the impact of social media on the banking industry, working alongside bank sponsors to assess digital trends and strategies.
- Delivered a final presentation of the project findings and actionable recommendations to the CEO of HSBC Egypt, showcasing research, analysis, and professional communication skills.
- Participated in training sessions led by senior executives gaining valuable insights into strategic decision-making, marketing innovations, and operational excellence in the banking industry.
- Enhanced teamwork, data analysis, and presentation skills through practical assignments and workshops.

Projects

Courses Registration System — *C++ | WinForms*   (GitHub)

- Developed a desktop application for managing course registration, grade tracking, and prerequisite verification
- Implemented student features including course search, registration with prerequisite checks, grade viewing, and printable academic reports showing course details and GPA
- Created administrator functionality for uploading course descriptions, setting prerequisites, and managing student grades
- Designed a user-friendly GUI to enhance usability

Car Price Prediction — *Python (Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Streamlit)*   (GitHub)

- Performed exploratory data analysis (EDA) using statistical techniques and visualizations to uncover insights and inform preprocessing steps.
- Cleaned, preprocessed, and scaled datasets, including feature selection to optimize model inputs.
- Developed and fine-tuned regression models: Linear Regression, Support Vector Regression (SVR), Random Forest, and Gradient Boosting.
- Built and deployed an interactive Streamlit app enabling users to input car details and receive real-time price predictions.

Machine Learning from Scratch — *Python (Pandas, NumPy)*   (GitHub)
- Implemented core ML algorithms from scratch using only Pandas and NumPy, focusing on building model logic and training processes manually.
- Validated the models by comparing their accuracy with Scikit-learn versions, achieving nearly identical results.

Vezeeta Medical Database — *SQL | Oracle Forms*   (GitHub)
- Designed ER schema and implemented SQL tables for a healthcare database managing patients, doctors, appointments, pharmacies, facilities, and medicines
- Developed an Oracle Forms UI to enable efficient interaction with the database for scheduling, prescriptions, and medicine orders

Technologies

Languages: Python, Java, C++ , VHDL
Data Handling & Manipulation: Pandas, NumPy
Data Visualization: Matplotlib, Seaborn, Plotly
Machine Learning Libraries: Scikit-learn, TensorFlow, Keras
Web Scraping: Selenium, Scrapy
Databases: SQL (MySQL, Oracle, SQLite)
Web Technologies: HTML, CSS
Version Control: Git, GitHub
Tools & Platforms: VS Code, Jupyter Notebook, Google Colab, Streamlit , Intellij
ML Concepts: Machine Learning Concepts Supervised & Unsupervised Learning, Regression, Classification, Clustering, Feature Engineering, Model Evaluation, Regularization, Hyperparameter Tuning, EDA

Languages

English *Proficient*   **Arabic** *Native*   **French** *Intermediate*