Youssef Taha Sayed

Cairo, Egypt | +20 1129998182
youssefttaha0033@gmail.com | linkedin.com/in/youssef3 | github.com/YoussefTaha39

Professional Summary

Artificial Intelligence and Machine Learning specialist with a Bachelor's degree in Computer Science and Engineering, specializing in Artificial Intelligence, from Galala University. Strong practical experience in machine learning, data science, deep learning, natural language processing, computer vision, and MLOps, supported by hands-on training through the NTI Summer Machine Learning Internship and the Digital Egypt Pioneers Initiative (DEPI) as a Microsoft Machine Learning Engineer. Experienced in developing end-to-end machine learning solutions, data preprocessing, feature engineering, model evaluation, cloud deployment, and backend development.

Education

- **Bachelor's Degree in Computer Science and Engineering, Specialization in Artificial Intelligence | Galala University | Suez, Egypt | September 2024 – Present**

Professional Experience

IHSS – AI & Data Instructor | 01/09/2026 – Present
- Teaching artificial intelligence and data fundamentals to students.

Digital Egypt Pioneers Initiative (DEPI) – Microsoft Machine Learning Engineer | 31/07/2026 – Present
- Developed practical skills in Machine Learning, Python, data preprocessing, model development, and evaluation.
- Gained hands-on experience with Microsoft and Azure AI tools, machine learning workflows, and end-to-end machine learning solution development.
- Applied concepts across prompt engineering, statistics, linear algebra, machine learning, deep learning, natural language processing, computer vision, and MLOps.

NTI Summer Machine Learning Internship | 08/2025 – 09/2025
- Developed and optimized predictive models using supervised and unsupervised learning, including regression, decision trees, and ensemble methods such as Random Forest and Gradient Boosting.
- Executed advanced data engineering workflows involving feature engineering, data cleaning, and preprocessing using Python, Pandas, NumPy, and Scikit-Learn.
- Applied dimensionality reduction and clustering techniques, including PCA and Gaussian Mixture Models (GMM), to process high-dimensional datasets and improve model efficiency.
- Implemented neural network architectures and performed model selection while balancing bias-variance trade-offs and computational performance.
- Deployed end-to-end machine learning projects on cloud platforms, managing workflows from raw data ingestion through model evaluation and visualization.

Projects

Diabetes Prediction Model | Python, Scikit-Learn, Pandas, imbalanced-learn (SMOTE)
- Architected an end-to-end machine learning solution for diabetes risk prediction, achieving 97% accuracy.
- Addressed class imbalance using SMOTE to improve model training and recall for minority classes.
- Executed a complete data science workflow including data cleaning, feature engineering, and exploratory data analysis using Pandas and NumPy.
- Created data visualizations using Matplotlib and Seaborn to communicate clinical insights and model performance.

GU Halls – University Hall Reservation System | Node.js, Express, PostgreSQL, JavaScript
- Developed a centralized platform to digitize university hall reservations, reducing booking time from hours to seconds while supporting conflict detection.
- Designed a PostgreSQL database schema with Role-Based Access Control (RBAC) to manage scheduling and secure approval workflows.
- Built a real-time analytics dashboard providing insights into resource utilization and peak usage periods to support infrastructure decisions.

Heart Disease Prediction Model | Machine Learning Project
- Developed a machine learning model for heart disease prediction, applying data analysis and machine learning techniques to build and evaluate the predictive solution.

Courses & Certifications

- AWS ML Foundations | NVIDIA Deep Learning | IBM AI Fundamentals

Skills

- **Professional Skills:** Machine Learning | Artificial Intelligence | Data Science | Predictive Modeling | Model Development | Model Evaluation | Data Analysis | Feature Engineering | Deep Learning | MLOps
- **Technical Skills:** Python | C++ | SQL | PostgreSQL | JavaScript | Pandas | NumPy | Scikit-Learn | imbalanced-learn | Matplotlib | Seaborn | Node.js | Express | RESTful APIs | Backend Development | Git | GitHub | Cloud Platforms | Azure AI | MLflow | Hugging Face
- **Personal Skills:** Analytical Thinking | Problem-Solving | Technical Communication | Continuous Learning | Adaptability | Research | Attention to Detail | Teamwork | Time Management | Creativity
- **Languages:** Arabic | English