

# Fares Esaam El-dein

## AI & Data Scientist

Egypt-Banisuef | 011252234480

FaresEsaam001@gmail.com

Github: <https://github.com/Faresx7>

Linkedin: [www.linkedin.com/in/fares-esam-0b3491222](https://www.linkedin.com/in/fares-esam-0b3491222)

Experienced AI and Data Scientist with a passion for leveraging data to drive insightful decision-making. Dedicated to solving complex problems and creating impactful, data-driven solutions through continuous learning and innovation.

## Professional Experience

### Data Scientist

- Utilized machine learning algorithms to analyze and extract insights from large datasets
- Created data visualizations and dashboards to communicate findings to stakeholders
- Performed data preprocessing by cleaning, handling missing values, and normalizing datasets to ensure high-quality inputs for machine learning models

### AI Research Engineer

- Researched and implemented cutting-edge AI techniques to enhance natural language processing capabilities
- Designed and developed deep learning models for pattern recognition and anomaly detection
- Collaborated with researchers to publish papers on AI advancements and best practices
- Optimized algorithms for performance and scalability in real-world applications

### CortexX — Enterprise Sales Forecasting & Demand Prediction

- Designed and implemented data preprocessing pipelines including data loading, cleaning, missing value handling, outlier detection, and feature engineering for time series data.
- Designed and developed a production-ready forecasting platform using 9 Machine Learning algorithms (XGBoost, LightGBM, CatBoost, and Random Forest) to predict sales and demand with high precision.
- Engineered advanced time-series features including cyclical encoding (Sine/Cosine), Fourier transformations, and rolling statistics to capture complex seasonality and trends.
- Implemented uncertainty quantification using Residual-based and Quantile Regression methods to provide 95% confidence intervals for business decision-making.
- Built an interactive data visualization dashboard using Streamlit and Plotly, allowing stakeholders to perform EDA, outlier detection, and "what-if" scenario analysis.
- Ensured code reliability with 95% unit test coverage and automated data validation pipelines using Python's best practices.

### End-to-End Data Analysis Project (EDA)

- Executed a comprehensive data analysis workflow on a complex dataset, involving extensive data cleaning, transformation, and exploratory data analysis (EDA) using Python (Pandas, NumPy).

- Executed a comprehensive data analysis workflow on a complex dataset, involving extensive data cleaning, transformation, and exploratory data analysis (EDA) using Python (Pandas, NumPy).
- Performed Data Wrangling to handle missing values, outliers, and data inconsistencies, ensuring 100% data integrity for the analysis phase.
- Documented the entire analytical process in a structured Jupyter Notebook, providing clear storytelling and business recommendations based on the data.

## Education

### Minia National University

2024 – 2027

*Bachelor's Degree in Artificial Intelligence*

### Digital Egypt Pioneers Initiative (DEPI)

Jun,2025-Nov,2025

Ministry of Communications & IBM

*Professional Training Program in Data Science & AI*

– focused on machine learning, data preprocessing, model deployment, and visualization.

## Key Skills

- Machine Learning (Sklearn)
- Data Analysis tools (Pandas, Numpy)
- Data Preprocessing
- Data Visualization tools (Streamlit, Plotly, PowerBi, Matplotlib, Seaborn)
- Python Programming
- SQL
- Time Management
- Teamwork
- Continuous Learning
- Problem Solving

## Interests

Continuous Learning in Data Science Trends

Development of AI-driven Business Strategies