

# Zeina Eltannikhy

Alexandria, Egypt | zeinaahmedmaher@gmail.com | +20 109 233 3107  
linkedin.com/in/zeina-eltannikhy-8a2a9a22a | github.com/ZeinaEltannikhy

## Summary

Passionate AI and Data Science professional skilled in machine learning, data engineering, and full-stack development. Experienced in creating AI-powered solutions for healthcare, hiring platforms, and intelligent systems. Proficient in Python, Flutter, SQL, and cloud technologies, with expertise in NLP, deep learning, and data analytics. Completed internships in data engineering, mobile development, and AI, focusing on scalable applications and data optimization. Enthusiastic about solving real-world problems with AI-driven innovation, particularly in federated learning, computer vision, and multimodal AI systems.

## Education

<b>Egypt Japan University for Science and Technology</b> , BSc in Computer Science and Information Technology	Oct 2021 – 2025 Alexandria, Egypt
<ul style="list-style-type: none"><li>GPA: 3.47/4.0</li><li>Major: Artificial Intelligence and Data Science</li><li>Relevant Coursework: Neural Networks, Image Processing, Data Science, Intelligent Systems, Algorithm Analysis, Web Development, Database Systems, Data Mining, Robotics, Blockchain &amp; Distributed Ledgers, Machine Learning, Big Data, Data Security, NLP, Computer Vision.</li></ul>	

## Courses and Certifications

<b>Machine Learning For Data Analysis</b> , National Telecommunication Institute (NTI) (120 hours)	Nov. 2024 – Jan. 2025
<b>Web &amp; Mobile Application Development</b> , ITQAN	July – Sept. 2024
<b>Data Engineering</b> , Digital Egypt Pioneers Initiative (DEPI) (200 hours)	April – Sept. 2024
<b>Digital Transformation and Data Literacy</b> , SAS (CIB Internship)	Aug. 2024
<b>Financial Literacy and Entrepreneurial Skills</b> , LinkedIn (CIB Internship)	Aug. 2024
<b>Human-Centric Interpersonal Skills</b> , Frankfurt School (CIB Internship)	Aug. 2024
<b>IELTS Certificate</b> (Score: B2, 6.5)	Nov. 2023
<b>Introduction to Artificial Intelligence and Applications</b> , Zewail City (50 hours)	Aug. 2023
<b>IOS Mobile Development</b> , Information Technology Institute (ITI) (60 hours)	Aug. 2022
<b>Introduction and Intermediate Python</b> , Microsoft, Ministry of Communications and Information Technology, Ministry of Youth and Sports	July – Aug. 2022

## Work Experience

<b>Machine Learning Engineer</b> at Cellula Technology	Jan. 2025 – Present
Gained hands-on experience in machine learning, focusing on developing and optimizing models for real-world applications. Worked on data preprocessing, feature engineering, and model training to enhance predictive accuracy. Strengthened expertise in deep learning, model evaluation, and deploying AI solutions.	
<b>Machine Learning For Data Analysis</b> at National Telecommunication Institute (NTI)	Nov. 2024 – Jan. 2025
120-hour training program focused on advanced machine learning techniques for analyzing complex datasets.	
<b>Data Engineering Intern</b> at Digital Egypt Pioneers Initiative (DEPI)	April – Sept. 2024
200-hour training in data pipelines, processing, and database management.	
<b>Web &amp; Mobile Application Development Intern</b> at ITQAN	July – Sept. 2024
Developed web and mobile applications for professional hiring in the food and beverage industry using NLP and full-stack development.	

- **Summer Intern** at CIB Internship Aug. 2024  
Completed training in Digital Transformation, Financial Literacy, and Human-Centric Skills.
- **IOS Mobile Development Intern** at Information Technology Institute (ITI) Aug. 2022  
Focused on Swift programming and building IOS applications.

### Personal Projects

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- **Professional Hiring Platform for the Food and Beverage Industry** (Python, Flask, PostgreSQL, Flutter)  
Developed a web and mobile application to streamline the hiring process with AI-powered job matching and profile management.
- **Accident Detection and Severity Prediction** (Machine Learning, Reinforcement Learning, Real-time Data Processing)  
Created a real-time accident detection system that predicts accident occurrences and severity using machine learning, incorporating real-time data.
- **Algorithmic Trading with Reinforcement Learning** (Deep Reinforcement Learning, Decision Transformer)  
Built a trading agent using reinforcement learning to optimize buy/sell strategies on real-time market data, improving financial decision-making.
- **Coursera Course Recommendation System** (Collaborative Filtering, Content-Based Filtering, Python)  
Developed a personalized course recommendation engine for Coursera, utilizing collaborative and content-based filtering techniques to enhance user experience.
- **Travel Recommendation System** (Algorithms, Dynamic Programming)  
Built an AI-driven recommendation engine to suggest personalized travel destinations based on user preferences and historical behavior.
- **Epilepsy Detection Using GANs and CNNs** (Deep Learning, GANs, CNNs, Medical Imaging)  
Developed deep learning models to detect epileptic seizures from medical images, improving diagnostic accuracy for healthcare applications.
- **Breast Cancer Detection** (Deep Learning, Image Processing, Medical AI)  
Designed an early detection system using image processing and deep learning techniques to improve diagnostic precision for breast cancer.
- **Sentiment Analysis** (Natural Language Processing, Neural Networks)  
Conducted sentiment analysis on large datasets using neural networks to gain insights into public opinions across different domains.
- **Arabic Letters Classification** (Machine Learning, Optical Character Recognition)  
Developed a machine learning model to accurately classify Arabic letters, ensuring high recognition accuracy for OCR applications.
- **Face Recognition System** (Computer Vision, Deep Learning)  
Designed and implemented a face recognition system with high accuracy, leveraging AI technologies for secure and efficient identification.
- **Event Management System** (Database Management, SQL, Web Development)  
Developed a database system to manage event registrations and attendee data, optimizing event planning and execution.

### Technical Skills

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**Programming Languages:** Python, C++ , JavaScript, Swift, Flutter, SQL

**Technologies & Frameworks:** HTML, CSS, Flask, React, Flutter, PostgreSQL, Azure, PowerBI, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, Pandas, NumPy, Matplotlib, Seaborn, MySQL, Oracle, Firebase, Ethereum

**Concepts & Specializations:** ETL Processes, Data Pipelines, Neural Networks, Deep Learning, Convolutional Neural Networks (CNN), Generative Adversarial Networks (GAN), Smart Contracts, Natural Language Processing (NLP), Sentence Transformers, Sentiment Analysis, Text Classification, ResNet

### Languages

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**Arabic:** Native    **English:** Fluent    **French:** Conversational    **Japanese:** Average