# Zeyad El-Sayed Abdel-Azim

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Profiles: GitHub | Kaggle | LinkedIn | Hugging Face

## Technical Summary

AI & ML Engineer with hands-on experience in building and fine-tuning deep learning models for NLP and Computer Vision. Skilled in transformer architectures, LLM development, and applied ML techniques including preprocessing, imbalance handling, and model optimization. Strong in Python, PyTorch, Hugging Face, algorithms, OOP, and end-to-end ML workflows.

## Skills

- Programming & Software: Python, C++, Git/GitHub, OOP, Data Structures
- Machine Learning: Supervised & Unsupervised ML, Feature Engineering, Model Evaluation, Imbalanced Data Handling
- Deep Learning: CNNs, RNNs, LSTMs, Transformers
- NLP & LLMs: Tokenization, Attention, Transformer Models, Fine-tuning, Embeddings
- Computer Vision: CNNs, Autoencoders, DCGANs, Image Denoising
- Frameworks: PyTorch, TensorFlow/Keras, HuggingFace, Scikit-learn, Pandas, NumPy, OpenCV, Matplotlib, PyCaret
- Data Engineering & BI: SQL, Tableau, Power BI, Excel
- Soft Skills: Problem Solving, Research, Documentation, Teamwork, Communication, Time Management

## Education

- **Benha University – B.S. in Computing & Artificial Intelligence** (Oct 2020 – Jun 2024) – GPA: 3.4

## Experience

- **AWS Academy – Data Engineering** (May 2024) [Certificate ]
  - Hands-on work with data collection, storage, preparation, and visualization.
  - Built pipelines for analytics and ML workloads.
- **Information Technology Institute (ITI) – Business Intelligence** (Jul 2023 – Sep 2023) [Certificate]
  - Learned SQL, data modeling, data warehouse concepts.
  - Built dashboards using Tableau & Power BI.
  - Applied BI tools to real-world analytics tasks.

## Projects

- **LLM from Scratch**: Implemented full LLM architecture including tokenizer, attention, transformer blocks and training pipeline. [GitHub] [Kaggle]
- **Catch the AI – Graduation Project**:
  Detecting AI-generated media with our advanced models. Our deep learning technology distinguishes between AI and human-authored media in images and text and audio . [GitHub] [HuggingFace] [Space HF]
- **Text to Pandas**: NLP system converting natural language to executable Pandas code. [GitHub] [Kaggle] [HuggingFace ] [Space HF]
- **Translation AR–EN Transformer**: Implemented transformer blocks from scratch for machine translation. [GitHub] [Kaggle]
- **DCGAN on Braille Images:** GAN architecture generating Braille-like patterns. [GitHub] [Kaggle]
- **Autoencoder for MRI Denoising:** Removing noise from Alzheimer MRI images. [GitHub] [Kaggle]
- **Handling Imbalanced Data:** Applied imbalance treatment techniques (over-sampling, under-sampling, SMOTE, over-under sampling, class weighting. [GitHub] [Kaggle]
- **Credit Score Classification:** Data cleaning with incorrect and missing values + ML using PyCaret + Tableau. [GitHub] [Kaggle]
- **Fine-tuning LLMs:** Repository for multiple fine-tuning tasks. [GitHub ]

## Military Service

Completed — December 2025