

AHMED EHAB

Cairo • (+201550179166) • ahmedehabb.official@gmail.com

LinkedIn/GitHub: alienplus

SUMMARY

AI Engineer building LLM and agentic systems — retrieval pipelines and FastAPI services deployed in Docker. Owns delivery end to end: client requirements, architecture, implementation, and evaluation. Experienced leading cross-functional teams and mentoring junior engineers, with shipped work in regulated verticals including legal and healthcare. Strong Python engineering background across both LLM systems and computer vision.

WORK EXPERIENCE

AI Engineer & Product Owner — LOCTech, Saudi Arabia [Remote] **June 2025 - Present**

- Own the AI product roadmap end to end: translate ambiguous client requirements into scoped technical sprints, architecture decisions, and measurable delivery targets.
- Built and deployed production Computer Vision pipelines (YOLOv8/v10, FastAPI) serving real-time inference for ConTech clients
- Delivered client-facing products by combining AI-assisted development with reusable service patterns, including a case management tool for a law firm company.

Machine Learning Researcher Intern - Nile University, Egypt [Hybrid] **July 2025 - Sep 2025**

- Built an end-to-end ML pipeline for chronic kidney failure diagnosis, covering preprocessing, model selection, and evaluation.

Machine Learning & Bioinfo Instructor - Metastatic ME, Egypt [Remote] **June 2025 - Sep 2025**

- Taught MSc students data analysis, machine learning, and bioinformatics; broke advanced technical material into progressive, achievable exercises.

Coding Instructor - Rocket Academy, Egypt [Remote] **Sep 2024 - Nov 2024**

- Delivered mobile app development training (FlutterFlow) and contributed to curriculum design.

Coding Instructor - iSchool, Egypt [Hybrid] **Mar 2024 - Sep 2024**

- Taught 500+ students Python, CS fundamentals, AI, and game development; affiliated with the DEMI project led by Egypt's Ministry of Communications and Information Technology (MCIT).

EDUCATION

Bachelor of Science in Computational Biology & Genomics **Sep 2021 - June 2025**

Zewail City, University of Science and Technology (UST)

- Specializing in Computer Vision
- GPA: 3.26 out of 4.0 (Very Good)

TECHNICAL SKILLS

- **Agentic AI & LLM Systems:** LangChain, RAG pipelines, n8n, tool & function calling, and structured outputs (Pydantic).
- **Retrieval & Vector Stores:** ChromaDB and FAISS.
- **Model Access & Serving:** OpenAI SDK, OpenRouter, Ollama (open-weight / local deployment).
- **Software Engineering:** Python (primary), FastAPI, REST API design, C++, OOP, testing & debugging. Familiar with TypeScript.
- **DevOps & Infrastructure:** Docker, Linux, Git/GitHub, CUDA. Familiar with AWS.
- **Data Systems:** SQLite, SQL data modeling, NumPy, Pandas, Matplotlib/Seaborn
- **Machine Learning & Computer Vision:** Deep Learning, Scikit-learn, OpenCV, Ultralytics (YOLOv8/v10), image segmentation, Multiple Instance Learning.
- **Agentic Coding:** Claude Code, Codex, MCP, Plugins, Skills.

PROJECTS

AI-Powered Classification Clinical Decision Support System for Ovarian Cancer Subtypes Images

- Preprocessed gigapixel Whole Slide Images (WSIs) of ovarian cancer through patching, tissue segmentation (Otsu thresholding), normalization, and augmentation.
- Extracted deep features using ResNet18, ResNet50, VGG16, and VGG19; applied mean and max pooling within a Multiple Instance Learning (MIL) framework for weakly supervised learning.
- Trained and evaluated classification models (SVM, Logistic Regression, Decision Tree, Random Forest, KNN, Naïve Bayes) with hyperparameter tuning, using accuracy as the key performance metric.

Tools: Python, NumPy, PyTorch, Scikit-learn, OS, Pathlib, tqdm, time, CUDA, TIA-Toolbox

Alzheimer's Early Stage Computer Aided Diagnosis (CAD) using Machine Learning Algorithms

- Extracted radiomics features (First Order, 2D Shape, GLCM, GLRLM, NGTDM, GLDM, GLSZM) using the PyRadiomics package.
- Preprocessed data through mean-max normalization, removal of highly correlated features, and label encoding.
- Trained and evaluated machine learning models (SVM, Logistic Regression, Decision Tree, Random Forest, KNN) with hyperparameter tuning, using accuracy, precision, and F1-score metrics.

Tools: Python, NumPy, Pandas, Seaborn, Scikit-learn, OS, PyRadiomics, SimpleITK

The Africeome Search Engine for Africa-based Diseases and Biological Data

- Working with a local SQL database to store scraped African disease and biological data from DisGENET.
- Developed a search engine using brute-force algorithms and implemented biological data conversion (RNA → DNA → Protein) with Biopython.
- Designed a user-friendly GUI for clinicians using Tkinter and CustomTkinter.

Tools: Python, SQLite, Tkinter, CustomTkinter, OS, Biopython

EXTRACURRICULAR ACTIVITIES

Content Creator — Laith YouTube Channel

May 2022 - Present

- Founded an educational channel guiding high school students toward competitive undergraduate programs, in partnership with the Dakahlia STEM School Competitive College Club.
- Channel Access: available on YouTube at @laith-1536.

Exploration Leader — TED-Ed @ Dakahlia STEM School

Jan 2021 - Mar 2021

- Led and coached a team of 15 in public speaking and technical presentation delivery.

Member and Speaker - TED-Ed @ Dakahlia STEM School

Dec 2019 - Mar 2020

- Learned and applied public speaking techniques, including how to craft and deliver an engaging speech that captures the audience's attention.
- Delivered a TEDx-style talk titled "The Happiness Paradox | Ahmed Ehab | Dakahlia STEM School"