

Ahmed El-Ganainy

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PROFESSIONAL SUMMARY

Freelance Generative AI Engineer with expertise in Deep Learning (DL), Machine Learning (ML), and Natural Language Processing (NLP). Proficient in designing, training, and deploying advanced AI models for a global clientele. Strong full-stack development skills, with experience building scalable applications that integrate AI solutions. Proven ability to drive innovation and deliver impactful AI-driven projects.(please check all my projects on github!!)

PROFESSIONAL EXPERIENCE

Si-Vision (acquired by Synopsys), Cairo, Egypt

Aug 2025 – Present

AI in Digital Verification Intern

- Designing and developing a hybrid Retrieval-Augmented Generation (RAG) agent for an expert-level Bluetooth technology chatbot.
- Architecting a multi-tool agentic system using LangChain to dynamically route user queries between a private technical knowledge base and live web search.
- Implementing an advanced, two-stage retrieval pipeline with Cross-Encoder re-ranking to ensure high-precision context for the LLM.
- Building the knowledge foundation by processing and embedding proprietary technical documents into a vector database (pgvector).

Develo Systems, Hybrid, Cairo, Egypt

May 2025 – Present

Outsource Software/AI Part-time Engineer

- Conducts daily professional meetings with clients worldwide for requirement gathering and project follow-ups.
- Develops and delivers custom software solutions for a global clientele, including web applications for clients in Syria and worked closely with the team on building the new Scene Cinemas mobile app that will be launched in two weeks.
- Spearheads the development and testing of AI-based tools for international clients, such as Dealtable.ai in Switzerland.
- Contributes with Develo Systems with the construction of El Sewedy's internal application, leveraging enhanced cloud services to ensure scalability and performance.
- Engineers advanced AI agents and integrates new AI search clients to improve application intelligence and user experience.

Slash Hub, Cairo, Egypt

Nov 2024 – Jan 2025

AI Agents Internship

- Collaborated on building AI Agents with LangChain and LangGraph; developed proof-of-concepts into production-ready AI products for local brands.

Applord GmbH / EcoDms GmbH, Aachen, Germany

Aug 2024 – Oct 2024

AI Developer Intern / Full Stack Intern

- Conducted intensive AI research to improve OCR and RAG pipelines under hardware constraints.
- Added 4 production-ready API endpoints to the ECODMS Document Management System.
- Developed a full-stack hardware management portal using Spring Boot, REST APIs, and Angular.

Self-Driving Car Hackathon (ITI/Google Dev Club), Cairo, Egypt

Dec 2023 – Feb

2024

Contestant

- Surpassed multiple phases by devising complex algorithms for real-time vehicle navigation and control; secured first place in the final race.

Telecom Egypt, Cairo, Egypt

Jul 2023 – Aug 2023

AI Intern (Machine Learning & Deep Learning)

- Projects included House Prices Prediction, Kidney Disease Classification, CNN Image Classification, Sentiment Analysis using LSTM, and Image Segmentation via OpenCV.

EDUCATION

Dual Degree, B.Eng. Computer and Software Systems

Oct 2021 – Jul 2026

Ain Shams University, Faculty of Engineering University of East London (ICHEP)

Cumulative GPA: 3.05/4.0 • Prior Semester GPA: 3.6/4.0

TECHNICAL SKILLS

AI & ML: Generative AI (LLMs, RAG Pipelines), LangChain, LangGraph, AI Agents, Deep Learning (LSTM), Machine Learning

Vision NLP: Computer Vision (OpenCV, OCR), Natural Language Processing, AI Search Integration

Programming: Python, C++, Java (OOP, Data Structures, Algorithms), Verilog, VHDL

Web & Mobile: MERN Stack (Node.js, Express, React), Spring Boot, Angular, Django, REST APIs, Mobile App Development

Databases: SQL (MySQL, PostgreSQL), NoSQL, Firebase, Supabase

Tools & Cloud: Git, GitHub, AWS, Minix, Ross 2 on Ubuntu

COURSES CERTIFICATIONS

- Machine Learning A-Z (Udemy)
- CS50 Web Development (Harvard University)
- Generative AI (LLMs and Multimodals), Computer Vision, NLP, Data Visualization, Data Preprocessing

LANGUAGES

Arabic: Native

English: C1 (IELTS certified)

French: A1

German: A1

MILITARY STATUS

Service postponed until graduation (July 2026); subsequently exempt from service.