

Mazen Ayman

Artificial Intelligence Engineer

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Summary

AI Engineering graduate with Highest Honors and an extensive background across advanced corporate engineering, autonomous multi-agent products, and applied academic research. Expert in building state-of-the-art agentic workflows, orchestrating local and cloud LLM architectures, and translating complex theoretical research into production-grade Python/PyTorch pipelines. Proven track record of scaling businesses through robust AI automation frameworks and custom high-fidelity computer vision platforms.

Technical Skills

- **Languages:** Python, R, SQL, C++, Bash.
- **AI & ML Libraries:** PyTorch, TensorFlow, Keras, Transformers, Scikit-learn, OpenCV, XGBoost, SciPy.
- **Data & Visualization:** Pandas, NumPy, Matplotlib, Tableau, Microsoft Power BI.
- **Tools & Infrastructure:** LangGraph, LangChain, n8n, FastAPI, Ollama, Claude Code, Linux/WSL, Docker, Kubernetes, Git, SQL Server, Streamlit.

Professional Experience

187N.ai Remote
AI Engineer May 2026 – Present

- Design and engineer advanced, production-grade agentic systems and multi-agent topologies to automate complex corporate workflows.
- Build scalable, customized AI flows using local LLMs and orchestration layers, empowering businesses to maximize efficiency and scale operations seamlessly.

Independent AI Developer (Freelance) Remote
AI Engineer Aug 2025 – Present

- **Voice AI Agents:** Deployed interactive, low-latency AI voice agents using LangGraph and FastAPI to completely automate customer-facing workflows such as restaurant reservations and order processing.
- **Automated Financial Trading Agent:** Developed an autonomous AI trading bot executing via Binance API, integrated with a real-time financial dashboard tracking Gold, USD, and EGP rates.
- **Oil & Gas AI Assistant:** Built a predictive dashboard and chat assistant to automate AFE calculations, process invoices, and forecast project timelines using historical industrial data.

UniMind Remote
Artificial Intelligence Engineer Jun 2023 – Jul 2025

- Engineered and optimized complex machine learning architectures, translating advanced theoretical models into scalable Python and PyTorch codebases for PhD researchers.
- **Infrastructure Optimization:** Developed an intelligent Reinforcement Learning framework to optimize Virtual Machine (VM) and data migration across multi-cluster Kubernetes environments, significantly reducing operational costs.
- **Explainable AI & Security:** Implemented Explainable AI (XAI) pipelines using SHAP to interpret multivariate time-series models (LSTM, Transformers), and developed multi-clustering defense frameworks against adversarial DDoS attacks.

Technical Projects

SPINTA – Football Analytics Platform *Graduation Project (Grade: 100%)*

- Engineered a comprehensive sports analytics platform for youth academies, leveraging Computer Vision to extract and analyze detailed player metrics from match footage.
- Integrated an interactive AI agent using LangChain and LangGraph to process match data and provide end-users with real-time tactical insights and performance feedback.

AI Agents Framework & Automation

- Built autonomous backend services utilizing n8n for workflow automation and LangChain/LangGraph for LLM orchestration, deployed via FastAPI to support robust agent interactions.

Education

Mansoura University Mansoura, Egypt
B.Sc. in Artificial Intelligence Engineering Sep 2022 – Feb 2026
GPA: 3.78/4.0 (*Highest Honors*)