

Ali Hamad

AI & Software Engineer · Lebanon · alimufidhamad0000@gmail.com · [Portfolio](#) · [GitHub](#) · [LinkedIn](#)

SUMMARY

AI & Software Engineer focused on intelligent systems — multi-agent pipelines, fine-tuned models, RAG, and MLOps. I build containerized, evaluation-driven systems end to end, from data and model layers through API serving and deployment. Seeking roles in AI engineering, backend systems, or MLOps.

TECHNICAL SKILLS

AI / Agents: LangGraph, LangChain, RAG, pgvector, Fine-tuning, NeMo Guardrails, MCP (Model Context Protocol)

Eval & Observability: Ragas, LangSmith, Arize, MLflow, Drift Detection (PSI / χ^2)

ML / DL: PyTorch, TensorFlow, Transformers, scikit-learn, ONNX Runtime

Backend & Infra: FastAPI, Async Python, PostgreSQL, Redis, Vault, MinIO, Pydantic, Casbin RBAC

DevOps: Docker, Kubernetes, CI/CD, GitHub Actions

Frontend: React, Vite

EXPERIENCE

AI Engineering Bootcamp — Graduate · SE Factory 2025 – 2026

Intensive full-time AI engineering training program

- Completed an intensive AI engineering program; shipped 8+ evaluated systems end to end.
- Built LangGraph multi-agent pipelines, RAG systems, and ML classifiers with CI evaluation gates.
- Mentored peers on LangChain, FastAPI architecture, and MLOps tooling (MLflow, drift detection).

Freelance AI & Full-Stack Developer · Self-employed 2025 – Present

- Delivered Albert, a multi-tenant AI SaaS with Postgres RLS, NeMo Guardrails, and ONNX serving.
- Consulted on LLM integration and agentic workflow design for early-stage Lebanese startups.
- Implemented RAG pipelines, document classifiers, and REST APIs for client projects.

PROJECTS

Modir — AI Business Operations Platform *Solo · In Progress*

GitHub: github.com/ali-hamad0/modir

<https://mymodir.com/>

- 5 **LangGraph agents** (Finance, Inventory, Customer, Operations, Strategy) in a supervisor topology; a multi-provider LLM router (Gemini → Grok → Claude) cuts hallucination rate ~30% versus a single provider.
- ML layer with demand forecasting, churn prediction, and anomaly detection, each behind **CI evaluation gates**; an **OCR pipeline** processes 200+ paper bills/min with Lebanese Arabic dialect support.
- Multi-tenant SaaS** on Postgres RLS, FastAPI, **Vault**, **Redis**, and **MinIO**; Docker-composed and Kubernetes-ready.

PathoScan AI — Medical Diagnostic System *Final Year Project*

GitHub: github.com/ali-hamad0/pathoscan-ai

- Transfer learning (**ResNet50V2** / **DenseNet121**) reaches 94%+ diagnostic accuracy on X-ray and MRI classification.
- RAG chatbot (LangChain + ChromaDB) indexes 35,000+ medical documents; evaluated with Ragas (faithfulness 0.91, answer relevancy 0.88).
- REST APIs for predictions, history, and analytics; LangSmith traces used to cut latency by 22%.

Drift Triage Co-Pilot — MLOps Stack *Production*

GitHub: github.com/ali-hamad0/drift-triage-copilot

- MLflow registry with PSI / χ^2 drift detection; LangGraph supervisor with Postgres checkpoints and **human-in-the-loop** approval gates.
- Redis queue** with idempotency, backoff, and DLQ; Docker-compose stack with Kubernetes deployment manifests.
- Reduced false-positive drift alerts by 40% via calibrated thresholds; monitored with Arize for live observability.

Maintainer's Copilot — Advanced RAG Chatbot *Open Source*

GitHub: github.com/ali-hamad0/maintainers-copilot

- Fine-tuned BERT** for issue classification; **hybrid retrieval** with **cross-encoder** reranking and query rewriting on pgvector; CI evaluation gates block regressions.
- Redis short-term and pgvector long-term memory; embeddable **React widget**; LangSmith evals track retrieval precision above 0.85.

Document Classifier as an Authenticated Service *Production*

GitHub: github.com/ali-hamad0/document-classifier

- Fine-tuned ConvNeXt Tiny on RVL-CDIP (16 classes, 320k images); **SFTP** → **MinIO** → **RQ** → **inference pipeline**.
- Casbin RBAC with fastapi-users JWT and Vault secrets; Docker-containerized with 99.2% uptime in staging.

CERTIFICATIONS

- AI Engineering Bootcamp — SE Factory (2026) | IELTS Academic — Band 5.5 (2026)
- Semicolon academy web security techniques, including application architecture, vulnerabilities, exploitation, and defense

EDUCATION

BSc Computer Science · Lebanese International University *Expected June 2026*

LANGUAGES

English (IELTS Band 5.5) · Arabic (Native) · French (French-educated)