

NOUR ALBAGOURY

AI Engineer | LLM Systems, RAG & Computer Vision

☎ +33611860428 ✉ nour@albagoury.com [in linkedin.com/in/nalbagoury](https://www.linkedin.com/in/nalbagoury) albagoury.com

Experience

Constructions Mécaniques de Normandie (CMN)

Sept. 2025 – Present

AI Engineer, Apprenticeship | Python, vLLM, LangGraph, Milvus, Docker

Cherbourg, France

- Solo-deployed **Black Marlin**, CMN's sovereign internal AI platform, on SecNumCloud infrastructure (4× H100 NVL): **500+ users**, 400+ messages/day, **0.34% error rate**.
- Built the platform's core: hybrid dense/sparse RAG on vLLM with a custom reranker, GraphRAG, agentic pipelines, SSO/RBAC and multi-model serving (GPT-OSS 120B, Qwen3 35B).
- Adapted the stack into an agentic RAG assistant for marine engineers over technical rule documents (BGE-M3, Milvus, reranking), with OCR ingestion preserving LaTeX formulas, 3-instance HA deployment and Grafana/Prometheus/Loki monitoring.
- Ran an AI needs assessment across 15+ departments, ranked use cases by ROI and business impact, presented to the executive AI committee; led company-wide training.
- Shipped internal tools: large-scale document audit (millions of files), naval plan version comparison, meeting-minutes generator, CIR eligibility identifier.

VisionFFE

Ongoing

Co-founder | Computer Vision, B2B SaaS

Remote

- Co-founded a B2B computer vision product for visual product matching: **96% Top-3** same-source and **100%** cross-source accuracy on a 98-SKU IKEA sofa catalog.

Navasard AI

Feb. 2025 – July 2025

Software Engineer | Python, FastAPI, Docker, GitHub Actions

Paris, Remote

- Developed scalable FastAPI backend services and a CI/CD pipeline (GitHub Actions, Docker) automating testing and deployment.

LISN, Université Paris-Saclay

Jan. 2025 – June 2025

Machine Learning Researcher, Internship | Java, SPMF, Choco-Mining

Paris, France

- Built an evaluation pipeline for pattern-mining tools using constraint programming, improving analysis accuracy by **25%**; ran 100+ benchmarking experiments (CPU, memory) with Plotly/Seaborn reporting.

Fawry Quantum

June 2024 – July 2024

Data Science Intern | Python, DBSCAN, Scikit-learn

Cairo, Egypt

- Applied DBSCAN to 700,000+ login records to build a location-verification system protecting 150,000+ clients; improved authentication accuracy by **50%**.

Projects

Ghostlock: Drone Interceptor (1st Place, EDTH Rome) | YOLO, BoT-SORT, Edge AI

Jul 2026

- Camera-only edge tracking system for drone interception, chosen **1st by unanimous vote**. Track-then-zoom pipeline (90% frame crop) cut inference latency by **26%** and raised recall to **99.5%**; Kalman ghost prediction keeps lock through detection blackouts.

Radio-Silent Multi-UAV Swarm Engine | Autonomous Systems, Path Planning

Jul 2026

- Decentralized coverage algorithm for a 5-UAV maritime surveillance swarm without live C2 links: boustrophedon paths, greedy sector allocation, and real-time redistribution of lost-drone sectors under strict RF silence.

Education

Université Paris-Saclay

Sept. 2025 – July 2027

Master Data Science & AI (ISD), Apprenticeship

Paris, France

ENS Paris-Saclay & Université Paris-Saclay

Sept. 2022 – May 2025

Double Degree, Bachelor's in Mathematics and Computer Science, Grade A, Rank 7/150

Paris, France

Technical Skills

LLM & RAG: vLLM, LangChain, LangGraph, GraphRAG, Milvus, BGE-M3, reranking, OCR **Vision:** PyTorch, Ultralytics YOLO, tracking, CLIP, GroundingDINO, SAM, VLMs, Edge AI **Programming:** Python, Java, C/C++, OCaml, SQL **Infra:** Docker, FastAPI, GitHub Actions, Keycloak, AWS, Grafana

Languages

English: Fluent (Linguaskill C1/C2)

French: Bilingual

Arabic: Bilingual

Spanish: B2