

Omar El Ansary

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AI SYSTEMS ENGINEER

PUBLIC RESUME

Profile

AI and automation developer working across agent workflows, backend systems, evaluation, and engineering tools. I care about the contracts around a model as much as the model call itself. Open to AI, backend, platform, and automation engineering opportunities in Germany.

Experience

AI & Automation Developer (Working Student) · JOYNEXT GmbH

May 2025 - Present

Building LLM workflows, backend services, retrieval and ranking components, evaluation paths, and engineering-tool integrations for automotive workflows.

Research Student · ScaDS.ai

Nov 2025 - Present

Working on structural and ontology-informed knowledge-graph analysis, benchmark construction, and evaluation workflows.

Embedded Linux Software Engineer (Working Student) · Valeo Egypt

Jul 2023 - Jul 2024

Developed Python and C# engineering applications and Bash-based test automation over embedded Linux and Yocto workflows.

Selected Projects

proxy-expert

Multi-tenant SaaS platform

A solo-built SaaS platform with tenant isolation, explicit security boundaries, a typed dashboard, and evaluation infrastructure.

Outcome: A working end-to-end platform foundation across backend, frontend, security, persistence, and evaluation concerns.

FastAPI / PostgreSQL / Row-level security / Alembic / SvelteKit

Dynamic Active Toolset Management

Master's thesis - LLM agents

Researching how an LLM agent can retrieve and manage a smaller active toolset from a larger MCP-based tool pool.

Outcome: An experiment-oriented system with explicit baselines and planned measures for task success, prompt efficiency, latency, retrieval quality, and tool-use effectiveness.

FastMCP / MCP / LiteLLM / SLURM / HPC

Cultural Question Answering

LoRA, retrieval, and evaluation

A cultural QA system combining Llama 3 8B, LoRA fine-tuning, FAISS retrieval, constrained outputs, and benchmark-driven error analysis.

Outcome: Reported combined accuracy improved from 0.47 to 0.78 on the project benchmark.

Llama 3 8B / LoRA / FAISS / SentenceTransformers / Codabench

Financial Research Search Agent

Technical assignment - agent workflow

A streaming research agent that routes financial questions between direct educational answers and web-search-backed synthesis with citations.

Outcome: A solo-authored technical assignment with 44 tests across seven files and explicit refusals for investment, legal, and tax advice; it was not a production deployment.

LangGraph / FastAPI / NDJSON streaming / OpenAI API / Tavily

Evidence-Backed Career System

Agent-neutral workflow architecture

A private, file-backed operating system for evidence, job intake, evaluation, CV generation, and immutable application records.

Outcome: One private source of truth now drives task-specific job and CV workflows plus a separately sanitized public portfolio projection.

Python / JSON Schema / LaTeX / GitHub Actions / Deterministic validation

Education

Omar is enrolled in an M.Sc. Computer Science at TU Dresden and holds a B.Sc. Engineering in Software and Healthcare Engineering from Cairo University. His Master's thesis is in progress.

Languages

Omar speaks Arabic natively, English at C1, and German at A2.