

Salah NACEF

Software Engineer

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Available for a 6-month final-year internship starting January–March 2027

Internship agreement provided by Université de Montpellier · Mobility: France and Europe

PROFILE

Software engineer with 2 years of professional experience across backend development, cloud infrastructure and full-stack delivery. Holder of an Engineer's Degree in Computer Systems (ESI Algiers, equivalent to Bac+5), currently completing a Master's in Software Engineering at Université de Montpellier. Comfortable owning a system end to end, from architecture to production.

EXPERIENCE

Software Engineer

Oct. 2025 – Sept. 2026

Ayor.ai

Algiers, Algeria

- Architected and led the development of a store builder enabling fast, scalable e-commerce store creation, cutting setup time for new sellers by 60% on a platform serving **100k+ subscribed users**.
- Integrated Stripe and MyFatoorah payment services with PCI-compliant processing, improving monthly user retention.
- Built affiliate programs with major telecom operators (Ooredoo) and influencers, driving user acquisition on the platform.
- Onboarded and mentored 5+ developers in an Agile Scrum team.
- Resolved security issues and production defects through GCP logging and Pub/Sub tracing, and extended automated test coverage across the codebase.

Research Intern in Software Security — Final-Year Internship

Sept. 2025 – July 2026

CNRS / LIRMM

Montpellier, France (Remote)

- Designed a new graph representation exposing the authorization architecture of REST applications, paired with a hybrid GNN detector for Insecure Direct Object Reference and missing access-control vulnerabilities (CWE-639).
- Engineered an AI system automating the production of systematic mapping studies using LangChain, compressing a process that normally spans months of doctoral work into days while keeping the researcher in the loop.
- **Co-authored 2 research papers**, currently under review at *Information and Software Technology*.

AI Engineer Intern

Jul. 2025 – Sept. 2025

Maystro Delivery

Algiers, Algeria

- Built a decision-support agent for e-commerce merchants, analysing product, regional and operational data across 5,000+ merchants to recommend optimal actions.
- Designed a multi-module LangChain architecture turning raw operational data into weekly actionable recommendations, processing **80,000+ records**.

Software Engineer

Dec. 2024 – May 2025

Vision of Independence

Montreal, Canada (Remote)

- Developed a fully responsive ERP dashboard leveraging shadcn/ui and Zustand, optimizing user interactions.
- Refactored legacy frontend modules, cutting initial load time by **50%** and improving maintainability.
- Developed an advanced analytics dashboard with real-time data visualizations.

Freelance Software Engineer

May 2024 – Oct. 2024

QDZ

Sétif, Algeria

- Engineered a complete e-commerce platform end to end as sole engineer (React.js, Django, PostgreSQL), automating sales workflows for a team of 10+.
- Designed a JWT authentication system with instance-level, granular permissions across 3 roles.
- Integrated shipping-carrier APIs to automate fulfilment processes, improving employee productivity by 30%.

Software Engineer Intern

Jul. 2024 – Sept. 2024

GEN 42

Algiers, Algeria

- Built a social-media management platform (React.js, Django) with AI-driven campaign optimisation and real-time content performance tracking.

EDUCATION

Université de Montpellier <i>Master's in Software Engineering</i>	2026 – 2027 (expected) <i>Montpellier, France</i>
Higher National School of Computer Science (ESI, ex-INI) <i>Engineer's Degree in Computer Systems — (equivalent to Bac+5)</i>	2021 – 2026 <i>Algiers, Algeria</i>

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, C, SQL
Backend: Django, Django REST Framework, FastAPI, Flask, Node.js, Express.js
Frontend: React.js, Next.js, TailwindCSS, Material UI, shadcn/ui, Zustand, TanStack Query, i18next
Databases: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, Firebase, Prisma
Cloud & DevOps: GCP, AWS, Docker, Kubernetes, Linux, Git, CI/CD
AI & Automation: Agentic AI, LangChain, LangGraph, OpenAI SDK, context engineering
Tools & Practices: Agile/Scrum, GitHub, Postman, Figma, UML, microservices, OWASP, Burp Suite

PROJECTS

Article Search Engine <i>React.js, Django, Elasticsearch, MySQL, Docker</i>	2023 – 2024
Full-stack search engine with an Elasticsearch-backed Django API, advanced filtering, admin workflows and Dockerised deployment with unit testing.	
Irrigation Optimization Model <i>Machine Learning, LSTM, DQN, Python</i>	2025
ML model combining LSTM forecasting and Deep Q-Network control to optimise irrigation scheduling, maximising crop yield while minimising water consumption.	
5G uRLLC Network Simulation <i>Free5GC, UERANSIM, Wireshark, iperf3, Docker</i>	2025
Simulated a uRLLC-optimised private 5G network with dynamic UPF placement to reduce end-to-end latency and improve reliability.	

ACHIEVEMENTS

- **1st place — Algeria Data Cup** [120 teams] — real-world challenges from BNP Paribas, Biopharm and Yassir on route prediction, demand forecasting and NLP.
- **1st place — Solvex Hackathon** [48 teams] — AI-based recommendation system for tourism personalisation.
- **3rd place — Coscape Hackathon** [48 teams] — real-time business analytics platform for startup growth.

EXTRACURRICULAR INVOLVEMENT

- **Event Manager**, S2EE Career Fair (ETIC Club, 2024) — coordinated Algeria's largest student career fair: **60+** companies including Société Générale, BNP Paribas and Ooredoo, and **1,200+** participants.
- **Technical Lead**, HAICK Datathon (School of AI Club, ESI, 2024) — led the organisation and the entire technical side of the third edition of Algeria's first national datathon, and built the event website handling participant registration and communication.

LANGUAGES

French · English · Arabic