

Walid Karray

Freelance Hands-On Solutions Architect · AWS · GenAI

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SUMMARY

Hands-on solutions architect with a **product mindset**: I design architectures **and build them**, from idea to production, and I measure them by the user outcomes and business value they deliver. In **16+ years** I've done it on both sides of the table: consulting for Fortune 500s, and as co-founder CTO scaling a startup to **1M+ users** (official ticketing provider for **AFCON 2023**). Today I ship **Generative AI that runs real business processes** (multi-agent systems, RAG and LLM orchestration in production at enterprise scale), on deep foundations in **AWS serverless**, event-driven architecture and IaC. AWS Certified Solutions Architect. Open to freelance missions.

CORE SKILLS

Cloud & AWS	Serverless, Lambda, API Gateway, EventBridge, SQS, AppSync / GraphQL, Cognito, Aurora PostgreSQL, event-driven architecture
Generative AI	AWS Bedrock, multi-agent orchestration, RAG, LLM orchestration, OpenRouter, Text-to-SQL, AWS Textract, vector search (MongoDB Atlas)
Languages & runtimes	TypeScript, Node.js, Bun, Python
IaC & DevOps	Terraform, CI/CD (GitHub Actions), Docker, LXC, Proxmox VE / PBS, security scanning (Checkmarx, Semgrep)

EXPERIENCE

TotalEnergies — Hands-On Solutions Architect

Nov 2023 – Present · Île-de-France, France · Full remote

- **DAIA**: GenAI pipeline (**GPT models** via the group's internal LLM platform, integrated with **SAP Datasphere**) that checks every purchase request against procurement policy and approves the compliant ones automatically, removing manual review and unlocking **~€2M/year in savings**.
- **Synaps**: enterprise GenAI assistant with **multi-agent orchestration**, featuring an autonomous agent driving **SAP with zero manual intervention** and **natural-language querying across 5 databases** via RAG.
- Both products run on the **multi-tenant serverless platform I architected** (Lambda, API Gateway, EventBridge, SQS): TypeScript backend, Python execution engine, a catalog of **50+ step handlers** reused org-wide.
- Built the CI/CD pipeline for the **SAP Fiori/UI5** applications: automated build and deployment, integrated with **ServiceNow** change management.
- E2E test suite covering multi-tenancy, RBAC and resource sharing; CI/CD (GitHub Actions) with blocking security scans (**Checkmarx, Semgrep**).

SNCF Connect & Tech — Cloud Engineer · AWS Serverless

Sep 2022 – Nov 2023 · Paris · Hybrid

- Contributed to the development of the next-gen audio-visual broadcasting system for train stations, on real-time AWS serverless: rolled out to **every SNCF station with zero downtime**, reaching **21M+ travelers** nationwide.
- Designed the testing strategy (unit, integration, automated, load) and the acceptance criteria enforced with the QA team, the groundwork behind the zero-downtime rollout.

Maxeon Solar Technologies — AWS Solutions Architect

Jul 2022 – Sep 2022 · Full remote

- Architecture mission for a global solar-panel manufacturer: **serverless-first AWS migration** of the platform serving **5 international markets**, cutting infrastructure costs and unlocking scale.
- Unified **Okta SSO**, **Salesforce CRM**, AlphaESS and **Net2Grid IoT** energy data into a single platform, with seamless data flows across systems.

Ticketchainer — CTO & Co-Founder — startup

Aug 2019 – Jul 2022 · Paris · Hybrid

- White-label B2B2C sports-ticketing SaaS, built from scratch as co-founder CTO with a **Lean Startup** approach: **1M+ users** and **10M+ tickets sold** in three years.
- Architected the serverless AWS stack, designed to auto-scale across client organisations.
- Official ticketing provider for **AFCON 2023**: the platform held **350K daily peak connections** and 25K tickets sold per day.
- Raised seed funding, grew the engineering team from **2 to 20**, and reached **40+ client organisations** (Betclic Group, AC Ajaccio, CAF).

France Médias Monde — Full-Stack Developer & Technical Referent

Dec 2016 – Jun 2020 · Issy-les-Moulineaux

- Contributed to the development of the editorial SaaS CMS **adopted by 4 international newsrooms** (France 24, RFI, MCD, Observers) publishing in **22 languages**.
- Backend development of **InfoMigrants** (FMM × Deutsche Welle × ANSA, EU co-financed): verified news for migrants in **6 languages**, mobile-first, read by millions.

France Télévisions — Full-Stack Developer

Apr 2016 – Dec 2016 · Issy-les-Moulineaux

- Delivered the **REST API and microservices backbone** for the digital platforms, with PoCs (SonarQube, MongoDB) that set the move to a microservices architecture.

RATP Smart Systems — Full-Stack Developer

May 2015 – Apr 2016 · Noisy-le-Grand

- Built the backend API of "Visitez Paris en métro", RATP's public guide to exploring Paris by metro.
- Built Python pipelines extracting and transforming the rail network's logs into statistical datasets published for the general public.

Hub-Scan Inc — Backend Developer (PHP)

Dec 2012 – Apr 2015 · Greater Paris

- Built the backend and REST APIs (CodeIgniter framework), and wrote the technical documentation, for the redevelopment of Hub'Scan, a SaaS platform that audits and validates digital analytics and marketing tags at scale.

Tritux Group — Full-Stack Developer

Mar 2010 – Nov 2012 · Tunis, Tunisia

- Built enterprise web applications (Java JEE, PHP) for public-sector, telecom and banking clients, at an official RedHat partner.

EDUCATION

BTS · Networking of IT & Telecom Systems — ISET Djerba · 2006 – 2010

CERTIFICATIONS

AWS Certified Solutions Architect – Associate — 2023

OCJP 6 · Oracle Certified Java Programmer — 2011

LANGUAGES

French — Native / Bilingual

English — Fluent · daily working language

Arabic — Native / Bilingual