

YACINE AMOUCHE

AI AUTOMATION ENGINEER | SENIOR BACKEND & INTEGRATION ENGINEER

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Java / Spring Boot | Python / FastAPI | LLM / LangChain | APIs | Automation | Docker / Cloud

PROFILE

AI Automation Engineer and Senior Backend & Integration Engineer with over 10 years of experience designing, developing, and productionizing critical systems across banking, insurance, and the public sector. Experienced in automation pipelines, Python/FastAPI services, LLM integration, data extraction and structuring, and integrating AI solutions into existing information systems. Strong expertise in Java/Spring Boot, microservices, REST APIs, PostgreSQL, Docker, and application security.

AI, AUTOMATION & INTEGRATION SKILLS

AI & LLM LangChain Ollama LLM integration structured extraction prompt engineering document processing	Automation & Integration workflow orchestration REST APIs webhooks batch processing systems integration business process automation
Backend, Data & Architecture Python FastAPI SQLAlchemy Java 8/11/17/21 Spring Boot Spring Batch PostgreSQL Oracle MySQL MongoDB Microservices DDD Clean / Hexagonal Architecture	Security, DevOps & Cloud OAuth2 OpenID Connect JWT IAM OWASP Top 10 DevSecOps Docker Kubernetes Jenkins GitLab CI SonarQube AWS Azure GCP Angular React

AI & AUTOMATION PROJECTS

AI Tender Automation Platform - Personal Project | Architecture & Development

Personal Project

- Designed an automated architecture for collecting, cleaning, structuring, and enriching tender data.
 - Developed Python / FastAPI services for ingestion, processing, and PostgreSQL persistence.
 - Integrated LangChain and Ollama to extract information from unstructured content and transform it into actionable business data.
 - Developed Spring Boot / Spring Batch services for batch processing, enrichment, and business API exposure.
 - Containerized services with Docker and designed a service-oriented architecture separating AI processing, batch workloads, and business services.
- Environment: Python | FastAPI | LangChain | Ollama | PostgreSQL | Spring Boot | Spring Batch | Docker | REST APIs

MissionFlow AI - Personal Project | Architecture & Development

Personal Project

- Business need:** Assigning a field intervention requires balancing urgency, skills, distance, and technician workload, often from incomplete information.
 - How it works: AI structures the request and proposes a qualification. Multi-criteria scoring compares eligible candidates against business constraints before human validation.
 - Architecture choice:** AI-based qualification is separated from scoring rules. This makes assignment recommendations explainable while preserving deterministic constraints for business decisions.
 - Limitations and project status: Matching relevance depends on the quality of the job posting and profile data. AI recommendations require review and do not guarantee mission suitability or a recruiter response.
- Environment: Python | FastAPI | n8n | Next.js | React | Tailwind CSS | Lucide React

FieldFlow AI - Personal Project | Architecture & Development

Personal Project

- Business need:** Mission searches scatter information across multiple sources. Qualifying an opportunity and tailoring an application requires aligning requirements, skills, and context.
 - How it works: The workflow collects and normalizes missions, calculates explainable matching, prepares a contextualized application package, then leaves validation and tracking to the user.
 - Architecture choice:** Separating collection, scoring, and document preparation provides control over each stage. Human validation retains the final decision before every submission.
 - Limitations and project status: The project is under development. Scores shown in the portfolio are functional examples, not production performance metrics. Uncertain qualifications must be reviewed by an operator.
- Environment: Python | FastAPI | Spring Boot | n8n | Next.js | Flutter | Dart | Dio | Visual Studio Code

PROFESSIONAL EXPERIENCE

Java Tech Lead & Security Lead FranceAgriMer • Provided technical leadership and contributed to architecture decisions for critical business applications. • Designed Spring Boot microservices and REST APIs for integration with business systems. • Automated and orchestrated high-volume batch processing and critical data flows with Spring Batch. • Implemented Spring Security, OAuth2 / JWT, and application security standards. • Performed SQL optimization, CI/CD industrialization, Dockerization, SonarQube integration, and code reviews. Environment: Java 17 Spring Boot Spring Batch Spring Security Hibernate PostgreSQL Docker Git Jenkins SonarQube OpenAPI OAuth2 JWT	2021-2022 / 2024-Present
Backend & Integration Tech Lead LACPAV • Designed backend and integration architectures, microservices, and REST APIs. • Automated and optimized business processing with Spring Batch. • Integrated backend services with existing systems and databases; provided technical leadership, business workshops, migrations, and support. Environment: Java Spring Boot Spring Batch Oracle PostgreSQL Git Docker OpenAPI	2022-2024
Full Stack Java / Angular Engineer Crédit Agricole Assurances • Developed Spring Boot backends and Angular frontends for insurance applications. • Built REST APIs, developed Hibernate persistence layers, wrote unit tests, and delivered application enhancements. Environment: Java Spring Boot Angular Hibernate Oracle Git Jenkins Maven	2019-2020
Java IAM Engineer BNP Paribas • Developed Java microservices and backend components using TDD in a banking environment. • Managed authorizations, OAuth2 authentication, IAM, and access security. Environment: Java Spring Boot OAuth2 IAM Oracle Docker Git	2018-2019
Java / Mobile Development & Cybersecurity ING Orange Labs ALB Informatique UPEC • Developed Java / Android / Kotlin solutions and worked on cybersecurity, vulnerability analysis, and application security. Environment: Java Android Kotlin Application Security OWASP Top 10	2014-2018

AREAS OF EXPERTISE

AI Automation Business process automation and AI pipelines	AI Integration Integration of LLMs and AI services into existing information systems
Document Processing Extraction, structuring, and processing of unstructured documents	Backend / API Automation Python/FastAPI, Java/Spring Boot, REST APIs, webhooks, and batch processing
SI Modernization Modernization and integration of business systems and applications	Secure Production Production engineering, Docker, CI/CD, OAuth2/JWT, DevSecOps

EDUCATION & CERTIFICATIONS

Master’s Degree in Autonomous and Communicating Mobile Systems - University of Bordeaux	2017
Master’s Degree in Information Systems Security - Paris-Est Créteil University	2016
Master’s Degree in Network Administration and Security - University of Béjaïa	2014
Certifications: PSM I AWS GCP	