ESSE JACQUES

Senior Full-Stack Engineer & Tech Lead | Java & Python | Angular | DevOps & Cloud | Fintech & Public Sector
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PROFILE

Senior full-stack engineer with 6+ years of experience designing, building and deploying web and mobile solutions for fintech, the public sector and SaaS. I work across the whole stack: **Java (Spring Boot) and Python (Django)** or NestJS on the backend, **Angular** on the frontend, Flutter for mobile, and **Docker, Kubernetes and CI/CD** pipelines to run it all in production. I have delivered platforms for **governments, a national utility, a regional development bank** and an HR SaaS used in **20+ African countries**. I enjoy owning a product end to end: scoping with the client, technical design, leading developers and handling production incidents.

TECHNICAL SKILLS

Backend: Java (Spring Boot, Spring Cloud, Spring Security, Hibernate/JPA), Python (Django, Django REST Framework, Flask, FastAPI), NestJS, Node.js, C#/.NET, PHP (Laravel, Symfony)

Architecture: microservices, modular monolith, multi-tenancy, hexagonal and Clean Architecture, DDD, event-driven (Kafka, RabbitMQ), REST, SOAP, GraphQL, idempotency, circuit breaker

Frontend: Angular (up to v21: Signals, standalone components, SSR), React, Next.js, Nuxt 3, TypeScript, PrimeNG, NgRx, Tailwind CSS

Mobile: Flutter, React Native (Expo), App Store and Google Play releases

Databases: PostgreSQL, MySQL, Oracle, SQL Server, MongoDB, Redis, Elasticsearch, Firestore

DevOps and cloud: Docker, Kubernetes, GitLab CI/CD, Azure Pipelines, Jenkins, Argo CD, AWS (EC2, S3, Lambda, VPC), Azure, GCP, Firebase, Nginx, Traefik, Let's Encrypt, Linux (Ubuntu server hardening)

Security: OAuth2, OpenID Connect, JWT, Keycloak, Vault, RBAC, SSO, MFA, passwordless authentication, encryption at rest, OWASP

Quality and observability: JUnit, Testcontainers, Jest, Vitest, Jasmine/Karma, pytest, Playwright, Cypress, SonarQube, TDD, Grafana, Prometheus, Kibana, Datadog

Data and AI: OCR, RAG, LLM integration, document analysis, chat assistants, Pandas, scikit-learn

EXPERIENCE

Senior Full-Stack Engineer *Dec 2024 to present*
Socium SA, Dakar

HR SaaS suite (ATS, Workflow, Performance, Payroll, Time, SociumDoc) used in 20+ African countries by clients such as the Presidency of Senegal and Senegal Numerique, running on Azure, Kubernetes and on premise. 1,450+ commits across 10 repositories.

- **Lead on Workflow:** rebuilt the whole v2 product (front end and backend) from scratch, Angular 15 to 20 migration; leave management engine (half days, balances, eligibility and seniority rules, server-side validation); bulk approvals, multi-step validation, server-side exports, Redis caching
- **Lead on Performance:** evaluations with live scoring, configurable rating scales and printable PDF reports; objectives redesign (sub-objectives, strict weighting controls, bulk closing, role-based views); training plans and sessions with scheduled reminders, e-learning integration (Yello); promotions, mobility and 9-box
- **Workspace:** seniority management, absences and absence rate, skills and trainings linked to job descriptions, offboarding with Keycloak account deactivation, HR reports with 143 KPIs, scheduled delivery and PDF rendering
- **Security across all products:** multi-tenant isolation and IDOR fixes at the data-access layer following a penetration test, fail-closed guards, per-app permissions and RBAC with Keycloak
- **Secure AWS S3 storage:** secured file service with antimalware scanning and signed links, rolled out across the 5 apps
- **Shared libraries:** data layer (tenant isolation, storage providers, entities) and common API used by every app; Datadog logging and observability
- **SociumJob:** rebuilt on Nuxt 3 (SSR, SEO); fixed critical production incidents (memory leaks, N+1 queries)

Stack: Angular 20, Nuxt 3, NestJS, Python, Keycloak, MongoDB Atlas, Redis, AWS (S3, Lambda), Datadog, Azure DevOps, Kubernetes, Docker, Jest

Lead Developer, Java, Python & DevOps *Aug 2021 to Nov 2024*
AXONE SA, Dakar

IT services company delivering projects for public institutions, banks, utilities and enterprises. I led the development team: scoping and solution design with clients, technical choices, code reviews, deployments and user training.

Public sector and institutions

- **CNFPLF (Senegalese public sector):** SaaS platform with 3 business apps (e-Budget, e-Courrier, e-Matière) in Spring Boot and Angular; advanced RBAC, AOP audit trail, real-time WebSocket (STOMP), OCR and AI document analysis; in production on Windows Server with Docker, Nginx and PostgreSQL

- **SENELEC Guichet Unique (national electricity utility):** single-window platform with a Spring Boot API, a partner portal and an internal back office; SOAP web services integration with SENELEC's systems, document management (GED) integration, centralized authentication with Keycloak (OAuth2, RBAC); 60% faster request processing
- **BOAD (regional development bank):** new-generation electronic archiving system (SAE) in Java Spring Boot replacing MaarchRM; domain model redesigned from scratch, data migration of the legacy archives, OCR, AI chatbot and semantic search over the archives, append-only hash-chained lifecycle journal guaranteeing integrity, Azure AD authentication; now holds 100% of the bank's archives
- **Presidency of Benin:** executive cockpit tracking about 40 priority government projects; Django REST API with a dedicated AI service (meeting summaries), web dashboard and React Native (Expo) mobile app; CI/CD with GitHub Actions, Docker, Nginx, Let's Encrypt and monitoring
- **Digital Senegal:** national data platform for Senegal's digital companies with analytics dashboards; passwordless magic link login, personal data encrypted at rest, security audit and fixes
- **ADS (Senegalese road agency):** national highway asset inventory platform (Spring Boot, Angular, PostgreSQL) replacing paper-based inventory; each asset is now inventoried in under a minute
- **XamDocs AI and AAS Insurance:** document assistant with a chat interface (Flutter) on top of an AI backend; insurance process automation with 40% shorter processing times

Fintech and SaaS products

- **Cauris Pay:** multi-operator mobile money aggregator (Orange Money, Wave, MTN, Airtel, M-Pesa) letting merchants accept payments through a single integration; Java Spring Cloud microservices with one service per operator behind an API gateway, Kafka, Elasticsearch, Resilience4j, idempotent payments; hosted checkout, merchant dashboard and admin console in Angular, plus CaurisFlux, a Europe to Africa money transfer mobile app (React Native)
- **Denkmako:** multi-vendor e-commerce marketplace (similar to Jumia) with a Flutter mobile app for buyers and sellers, push notifications (Firebase) and an Angular and NestJS back office
- **Multi-tenant property management SaaS:** properties, tenants, leases and rents, i18n and per-tenant dashboards (NestJS, Angular, MongoDB)

Stack: Java, Spring Boot, Python, Django, NestJS, Angular, Next.js, Flutter, React Native, PostgreSQL, MongoDB, Redis, Kafka, Elasticsearch, Keycloak, AWS (EC2, S3, VPC), Docker, Kubernetes, GitLab CI/CD, GitHub Actions, Jenkins, Windows Server, JUnit, Testcontainers, Jest, Vitest, pytest, Playwright (E2E)

Software Development Consultant (remote) *Aug 2020 to Aug 2021*
Multivers, Paris

- **Recruitment websites:** for 9 London recruitment firms (TalentButler, Crem Recruitment, Team Network...); Angular SSR, Firebase, Django and NestJS backends, SEO, ATS integrations and AI profile matching
- **FireWatch for Midgard (French civil security start-up, showcased at the Élysée):** real-time wildfire and smoke detection platform for firefighters, with AI-powered automatic detection from drone imagery; microservices in NestJS, Django and Java, Angular front end consuming sensor streams over WebSocket, NgRx state, instant alerts
- **Trainer recruitment platform and multilingual showcase site:** automated selection workflows, full i18n, SEO and Core Web Vitals
- **CI/CD and tooling:** pipelines and deployment automation (AWS, DigitalOcean, Docker); Angular Cookbook and a reusable validation library adopted internally

Stack: Angular, Angular SSR, Django, NestJS, Java, microservices, TypeScript, WebSockets, NgRx, PostgreSQL, Firebase, AWS, Docker, GitLab CI/CD, GitOps, Jest, Jasmine/Karma, Playwright (E2E)

EDUCATION

MBA in Digital Solutions Design and Development (Master's level), ISM Digital Campus, Dakar

Bachelor's degree in Software Engineering, Networks and Systems, ISM Digital Campus, Dakar

Bachelor's degree in Computer Science, INU Champollion, Albi, France

CERTIFICATIONS

DevOps Engineer: Linux, Docker, Kubernetes, Terraform, CI/CD, Udemy

Microservices & Distributed Systems, Amigoscode

CCNA Routing & Switching, Cisco

Blockchain Developer, LinkedIn

LANGUAGES

French: native (C2) | English: professional working proficiency (C1)