

Achraf Boutzad

Software Engineer | DevOps Engineer

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Professional Summary

Software Engineer and DevOps Engineer with one year of experience delivering operational software for MARWA through Haldorix. Builds real-time dashboards, monitoring systems, APIs, and IoT integrations using Spring Boot, FastAPI, Next.js, Kafka, MQTT, WebSockets, and CI/CD.

Core Competencies

- **Methodologies:** Agile, Scrum, SDLC, iterative delivery, continuous improvement, DevOps practices
- **Analysis & Design:** Requirements analysis, UML, Merise, microservices, event-driven architecture, REST API design, data modeling
- **Testing & QA:** JUnit, Selenium, SonarQube, unit testing, integration testing, API testing, code quality review
- **Collaboration & Documentation:** Cross-functional teamwork, technical documentation, stakeholder communication, ClickUp, customer orientation
- **Technical Skills:** Java/JEE, Spring Boot, Python, FastAPI, JavaScript, TypeScript, Next.js, React, Angular, SQL/PLSQL, HTML, CSS, Tailwind CSS
- **Tools & Platforms:** Git, GitHub, CI/CD, Docker, Linux, Kafka, MQTT, WebSockets, MySQL, Oracle, SQL Server, Power BI, Streamlit

Professional Experience

Software Engineer

2025–Present

Haldorix – MARWA Corporation

Morocco

- Engineered real-time production dashboards and operational monitoring features that increased workflow visibility and contributed to an estimated 50% improvement in team productivity.
- Optimized order and station workflows by exposing bottlenecks, queue status, and processing KPIs, helping reduce operational waiting time by approximately 30%.
- Integrated backend services, WebSocket-based updates, and event-driven data flows to deliver timely production metrics and improve responsiveness for operational users.
- Automated build, testing, and deployment activities through Git-based CI/CD practices, shortening release preparation and reducing deployment-related defects.
- Collaborated with MARWA stakeholders and Haldorix engineers to translate business requirements into maintainable features, document changes, and support reliable releases.

Business Intelligence Intern

May 2023–Jul 2023

Faculty of Sciences Semlalia

Marrakech, Morocco

- Designed and implemented a decision-support information system for road-safety data analysis.
- Integrated road-safety datasets into a centralized data warehouse, improving analytical consistency and accessibility.
- Built multidimensional analyses using OLAP cubes and MDX queries to accelerate structured exploration of operational indicators.
- Developed interactive Power BI dashboards for near-real-time visualization and clearer reporting of key metrics.

Projects & Analytics Experience

Real-Time Production Monitoring and Bottleneck Analytics Platform – Next.js, Spring Boot, WebSockets, Kafka, MySQL

- Architected a live operations platform that streams station status, order progress, queue depth, throughput, waiting time, and efficiency KPIs to responsive dashboards.
- Implemented event-driven processing, WebSocket updates, alert rules, historical trend analysis, and

role-based views for production supervision and bottleneck detection.

Industrial IoT Telemetry and Alerting System – FastAPI, Python, MQTT, Kafka, PostgreSQL, Docker

- Built an IoT ingestion layer for device telemetry using MQTT, asynchronous FastAPI services, validation pipelines, and Kafka-based event distribution.
- Added threshold alerts, device-health monitoring, time-series aggregation, retry handling, and containerized deployment for resilient industrial integrations.

Distributed Service Monitoring and Incident Platform – Spring Boot, Kafka, WebSockets, SQL, Docker

- Developed microservices that collect application health, job status, error events, and deployment signals and expose them through real-time monitoring APIs.
- Designed service-level dashboards, incident timelines, audit logs, and notification workflows to support observability and faster root-cause analysis.

Workflow and Order Orchestration System – FastAPI, Next.js, WebSockets, MySQL

- Implemented configurable workflows, order-state transitions, assignment rules, SLA timers, live status synchronization, and analytics for operational decision-making.

Education

Specialized Master's in Information Systems Engineering 2023–2025
Faculty of Sciences Semlalia, Marrakech

Bachelor's Degree in Mathematics and Computer Science 2018–2023
Faculty of Sciences Semlalia, Marrakech

Baccalaureate in Mathematical Sciences A 2017–2018
Lycee Akenousse, Essaouira

Certifications

- Engineering Practices for Building Quality Software – Coursera
- Machine Learning with Python – Coursera