

Abdelmadjid Guessabi

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JAVA SOFTWARE ENGINEER

Java Software Engineer with 7+ years of experience, leveraging full-stack expertise to build interactive, user-centered software. Proven track record in implementing microservices architecture, managing CI/CD pipelines, applying DevOps practices, and deploying applications on AWS.

SOLID Principles · Design Patterns · Object Oriented Programming (OOP) · RESTful API
Containerization · Micro Services · Database Management · Multithreading · Code Version Control

Languages: Java, Python, C/C++

Frameworks & Libraries: Spring Boot, Spring MVC, Spring Data JPA, Mockito, JUnit, Selenium

Web Technologies: RESTful API, React, Redux, Typescript, NodeJS, JavaScript, JWT, JSON, SOAP

Development Tools: SonarQube, Maven, Gradle, Git, Cucumber, Playwright, Jmeter, Docker, Jira, Confluence

Distributed Systems & Monitoring: AWS, RabbitMQ, Kafka, Kubernetes, Elasticsearch, Logstash, Kibana, Zipkin

Databases: Oracle, PostgreSQL, MongoDB, Redis

DevOps: CI/CD, Jenkins, AWS, TerraForm, Ansible

SDLC: Agile / Scrum, Test Driven Development (TDD), Behavior Driven Development (BDD), Code Review

Platforms: Linux, Windows, MacOS

PROFESSIONAL EXPERIENCE

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

EMPLOITIC (MINISTÈRE DES FINANCES), Algiers, Algeria · 01/2023 – 08/2023

Senior Software Engineer

Developed and deployed a financial analytics dashboard.

- Implemented a **Python**-based data collection service to efficiently gather transaction data from 50+ remote servers, ensuring seamless integration and reliability.
- Developed a REST API back-end using **Spring Boot** to support a dynamic dashboard, ensuring robust data handling and integration.
- Created a financial dashboard using **React** and **Redux** to enhance user experience and empower management to make data-driven decisions with real-time insights.
- Enhanced REST API services performance, integrating **MongoDB** to achieve 20% faster response time.
- Established unit tests using **JUnit**, **Mockito** and **Selenium**, which boosted code quality and delivery by 45%.
- Deployed 8+ on-premise services leveraging **Ansible** with **AWS** services like ECS, S3, RDS, and SES.
- Added **Jenkins** CI/CD pipelines to streamline deployments, resulting in a 60% reduction in resource usage.

Technologies Used: Java, Spring Boot, JUnit, Mockito, Python, React, Redux, PostgreSQL, MongoDB, AWS

TRÉSOR, Bechar, Algeria · 12/2018 – 12/2022

Senior Software Engineer

Modernized a legacy financial information system to improve performance and scalability.

- Migrated the backend of a legacy Oracle Forms-based financial information system to a modern architecture using **Spring Boot**, achieving a 30% reduction in system response time.
- Refactored legacy monolithic architecture to microservices on **AWS** using **Terraform**, increasing system uptime by 20% and decreasing deployment cycles by 40%.
- Redesigned the frontend of the financial information system with **React** and **Redux**, resulting in a more intuitive and user-friendly interface.
- Crafted unit tests using **JUnit**, **Cucumber** and **Playwright** to ensure code quality and reliability, achieving over 90% test coverage in critical application components.
- Streamlined automated testing and deployment using **Jenkins**, **SonarQube**, and **Docker**, which improved the efficiency of the development process.
- Ported **Oracle** database to **PostgreSQL** and optimized SQL queries, leading to reduced response time by 40%.

- Used **Elasticsearch**, **Logstash**, **Kibana**, and **Zipkin** for log analysis and application monitoring to identify bottlenecks and optimize application performance.

Technologies Used: *Java, Spring Boot, JUnit, React, Redux, SQL, Docker, AWS, Terraform, Jenkins, SonarQube, ELK*

TÉLÉDIFFUSION D'ALGÉRIE, Bechar, Algeria · 07/2016 – 11/2018

Software Engineer

Developed and maintained web and desktop applications.

- Maintained a web application using **Java**, **Spring Boot**, and **Hibernate**, resulting in a 25% increase in user engagement.
- Created applications using **Java** to configure VSAT terminals, facilitating the setup and monitoring.
- Contributed to implementing authentication mechanisms and encryption/decryption using **Java** and **C/C++**.
- Developed user-friendly reporting tools purposes using **Java** and **PostgreSQL**.

Technologies Used: *Java, C/C++, Spring Boot, Hibernate, JUnit, PostgreSQL*

ACADEMIC PROJECTS

Maharishi International University - Realtime API Streaming and Reporting: Real-time data processing pipeline, integrating API streaming, Kafka transmission, Spark job processing, and HBase/Hive storage. Achieved seamless handling of purchased data events, ensuring timely and scalable insights for stakeholders with insightful reporting, leveraging **Spring Boot**, **Kafka**, **Spark**, **Hive**, **HBase**, **Python**, **GitHub**, **Pig**, and **Tableau**.

Maharishi International University - Automatic API Discovery System: A System of microservices to search for, catalog, and categorize public Restful APIs. This project uses advanced techniques like code generation and web crawling with a dashboard UI to display the collected data. Built with **Spring Boot**, **Kafka**, **React**, **Docker**, and **GitHub**.

Bechar University: A plant disease detection system to identify and diagnose plant diseases from images, leveraging **Python**, **Pandas**, **Keras**, **Pillow**, **OpenCV**, and **PyQt**.

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 04/2026)

Maharishi International University, Fairfield, Iowa

Key Courses: *Software Architecture, Web Application Architecture, Enterprise Architecture, Big Data Technologies*

Bachelor of Science in Mathematics and Computer Science

Bechar University, Bechar, Algeria