

# MAYSSA ELLOUMI

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## SOFTWARE ENGINEER

Results-driven Software Engineer with 3+ years of experience in Java, Spring Boot, and full-stack development across insurance, e-commerce, and AI sectors. Proficient in building scalable microservices, RESTful APIs, and real-time systems using Kafka, AWS, and modern CI/CD practices. Thrive in Agile environments, delivering robust, maintainable code through test automation and cross-functional collaboration.

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**Languages:** Java (including Design Patterns, OOP, Data Structures, Microservices, and Collections), Python

**Web:** HTML, CSS, JSP, JSF, ReactJS, REST, JSON

**Testing Tools:** JUnit, Selenium, Mockito

**Frameworks:** Spring MVC, Spring Boot, Hibernate

**Databases:** MySQL, PostgreSQL, MongoDB, OracleDB, Hadoop

**Tools & Platforms:** Git, Bitbucket, GitLab (Version Control Systems), Maven, Eclipse, IntelliJ, VS Code, SAP Hybris, Jira

**Operating Systems:** Windows, MacOS, Linux/Unix

**Cloud Platforms:** AWS (EC2, ECS, S3, Lambda, RDS, Elastic Beanstalk, Bedrock, SageMaker, SQS, IAM, CodeCommit, CodeBuild, CodeDeploy, CloudFront, CloudWatch, VPC, Subnets)

**Messaging & Streaming:** Kafka, JMS

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## PROFESSIONAL EXPERIENCE

*Completed on-campus studies and currently taking distance education courses to complete a  
(Available for full-time, W-2 employment).*

**DECADE, Sfax, Tunisia · 09/2023 – 04/2024**

**Software engineer**

**Project: Intersport**

- Developed, debugged, and optimized full-stack geolocation services for a store locator using **Java**, **Spring Boot**, **ReactJS**, resulting in improved customer navigation & increased in-store traffic by **30%**.
- Built and maintained scalable **RESTful APIs** using **Spring Boot**, integrating with **SAP Hybris** for product catalog and order processing functionalities, and storing dynamic session data and user preferences in **MongoDB**.
- Diagnosed and resolved a critical login failure for newly created fidelity accounts by debugging the network authentication flow, improving user onboarding experience and reducing login-related support tickets.
- Conducted integration and unit testing using **JUnit** and **Postman** to ensure **API** reliability and performance in real-time shopping cart and user account scenarios.
- Leveraged **IntelliJ IDEA** for efficient backend development, including code navigation, **debugging**, and **refactoring** in a large-scale modular e-commerce codebase.
- Collaborated with UI/UX teams to improve the e-commerce platform across desktop/mobile devices.
- Participated in **Agile sprints**, code reviews, retrospectives, and sprint planning sessions
- Used **Git** for version control and managed code deployment through **Bitbucket** and **Jenkins** for **CI/CD**.
- Applied Aspect-Oriented Programming (**AOP**) in Spring Boot to modularize cross-cutting concerns such as logging, security, and exception handling, leading to cleaner, more maintainable backend code.

**RGI, Tunis, Tunisia · 08/2021 – 09/2023**

**Software engineer**

**Project: Pass Insurance**

- Optimized insurance claims processing systems by implementing custom validation logic in **Java & Spring Boot**.
- Collaborated with **cross-functional teams** to enhance system scalability during high insurance claim volumes by optimizing **OracleDB** queries and introducing caching mechanisms in **Spring Boot** services.
- Integrated **Kafka** into a claim validation subsystem to enable real-time, scalable processing of submitted insurance claims, decoupling request submission from synchronous backend processing and enhancing responsiveness during peak submission periods.
- Decomposed legacy monolithic services into modular Spring Boot **microservices**, enabling independent deployment, improved maintainability, and horizontal **scalability** across the insurance claims platform.
- Implemented **JMS**-based messaging for critical fraud detection workflows, ensuring guaranteed delivery and transactional integrity for high-priority alerts in the insurance claims lifecycle.
- Developed and implemented **CI/CD pipelines** using **AWS Code Commit, Build, Deploy** for **Java** and **Spring Boot** applications in policy management, automating **build**, **test**, and **deployment** workflows, reducing deployment time by **40%**.

- Engineered role-based access controls for internal policy and claims platforms using **Java**, **AngularJs**, and **AWS RDS (OracleDB)**, improving security compliance with internal audit requirements and regulatory standards.
- Built advanced search functionality for insurance customer records using **Java** and **AWS RDS (OracleDB)**, refactored with **Repository Design Pattern** to ensure clean separation between business & data access layers.
- Refactored service controller logic by applying query optimization and **in-memory caching**, decreasing claim lookup latency during peak hours and enhancing responsiveness for customer service agents.
- Wrote **JUnit** and **Selenium** tests to validate critical components, ensuring release stability.
- Participated in **Agile ceremonies** and cross-functional **code reviews**, improving team delivery cadence.

University of Ottawa, Remote· 02/2022 – 07/2022 (contract)

R&D engineer

Project: **Blockchain**

Developed research capabilities for blockchain research and development.

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