# YAAKOUB KADRI

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#### **FULL-STACK JAVA DEVELOPER**

Detail-oriented Software Engineer with over 5 years of experience, including 4 years in full stack development (Java, Spring Boot, React.js, Node.js, REST APIs, SQL/NoSQL) and 1 year in embedded systems. Skilled in building scalable backends, microservices, and responsive web applications. Experienced mentor with strong foundations in algorithms, OOP, and operating systems. Proficient in Agile/Scrum, CI/CD, and cloud deployments, with a proven record of improving performance, scalability, and maintainability.

• Object-Oriented Programming (OOP) • API Design and Integration • Software Engineering Principles

• Cloud-Based Infrastructure and Deployment • System Design and Architecture • Security and Data Integrity

Languages: Java, JavaScript

Web: HTML5, CSS3, TypeScript, JSP, Bootstrap, React.js, Vue.js

Web Services: RESTful APIs, Spring MVC (REST Controllers), Node.js (Express), Spring Cloud Gateway

Web/App Servers: AWS, Apache, Tomcat

Frameworks: Spring Boot, Spring Security, Spring JPA, Spring Cloud, Spring AI, Hibernate, React.js, Vue.js, Express.js

Databases: MySQL, MongoDB

Design Patterns: MVC (Model-View-Controller), Dependency Injection, Factory, Singleton, Strategy

SDLC: Agile (Scrum), Waterfall

Tools: Git, GitHub, GitLab, Docker, Jenkins, Maven, Gradle, Jira, Slack, Postman, ELK Stack (Elasticsearch, Logstash,

Kibana), Kafka, Grafana

Platforms: Linux/Unix, Windows, Vercel

**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).

#### PROFESSIONAL EXPERIENCE

## **SAGEMCOM**, Mégrine, Tunisia • 08/2021 – 01/2025

Sagemcom is a global technology leader in telecom, IT services, and IoT solutions, helping businesses and operators drive digital transformation and operational efficiency across industries.

## Software Engineer II (11/2022 - 01/2025)

- Built an IoT device management platform with Java, Spring Boot, React.js, and AWS, enabling real-time monitoring and control of 100K+ devices and improving operational efficiency by 35%.
- Designed and deployed a microservices architecture using Spring Cloud Gateway, Eureka, Docker, and GitHub Actions, reducing release cycle time by 50% and improving scalability.
- Developed RESTful APIs for IoT data pipelines with Spring Boot and MongoDB, boosting analytics dashboard processing speed by 40%.
- Enhanced customer-facing dashboards with React.js, Redux, and TypeScript, improving usability and reducing support tickets by 25%.
- Implemented advanced authentication and authorization mechanisms with Spring Security and JWT, strengthening data protection and reducing unauthorized access attempts by 30%.
- Integrated Kafka-based event-driven communication across distributed services, ensuring real-time responsiveness and reliable data flow.
- Automated CI/CD pipelines with Jenkins, GitHub Actions, Docker, and Kubernetes, achieving zero-downtime deployments.
- Monitored and optimized system performance with AWS CloudWatch and Redis caching, handling growing traffic demands and improving response times.
- Conducted unit and integration testing with JUnit, Mockito, and Postman, improving release quality and minimizing production incidents.

# **Software Engineer I (08/2021 – 11/2022)**

- Contributed to IoT analytics dashboards with Spring Boot, React.js, and MySQL, improving reporting accuracy and enabling faster business decisions.
- Built REST APIs for device provisioning with Node.js/Express, accelerating IoT device onboarding by 20%.

- Implemented secure authentication and authorization with Spring Security and JWT, protecting customer data and strengthening platform trust.
- Optimized MySQL queries and schemas for device logs, reducing query response times by 30% and improving responsiveness.
- Automated test coverage with JUnit, Mockito, and Postman collections, reducing regression defects by 15%.
- Configured CI/CD pipelines with GitLab, enabling faster and more reliable deployments.
- Participated in Agile ceremonies (standups, sprint reviews, retrospectives) and collaborated with product owners to refine backlog items.
- Conducted code reviews and refactoring, improving maintainability and reducing technical debt.

<u>Technologies Used:</u> Java, Spring Boot, Spring JPA, Spring Security, Spring Cloud Gateway, Kafka, RabbitMQ, Docker, Kubernetes, Jenkins, JavaScript, React.js, Redux, Vue.js, Axios, Hibernate, MySQL, Redis, REST APIs.

#### National School of Computer Science (ENSI), Manouba, Tunisia • 09/2018 - 06/2021

Prestigious public engineering school specializing in computer science and software engineering.

#### Lecturer

- Taught undergraduate courses in OOP, Data Structures & Algorithms, and Operating Systems, combining theory with hands-on coding in Java, C, and UNIX/Linux.
- Developed course materials, lab projects, and programming assignments using Java and C to strengthen students' problem-solving and backend development skills.
- Mentored students on coding practices and project work, fostering critical thinking and preparing them for software engineering careers in enterprise environments.

Technologies Used: Java, C, Object-Oriented Programming, Concurrent Programming, UNIX/Linux, Shell.

## TELNET, Les Berges du Lac, Tunisia • 10/2017 – 08/2018

Engineering and consulting firm specializing in software development, embedded systems, and telecom solutions for industries including automotive and aerospace.

## **Software Developer**

- Developed embedded functionalities for an automotive fault detection system using C/C++, improving diagnostic accuracy and reducing false positives during testing by approximately 25%.
- Added real-time data logging features to vehicle telematics modules using Python, enabling better post-trip analysis and enhancing fleet monitoring capabilities.
- Tested and validated communication routines over the CAN protocol for in-vehicle networks, ensuring consistent message delivery and reducing system errors by an estimated 30%.
- Integrated low-level features into a vehicle control unit for a prototype diagnostic device, helping accelerate the testing cycle for new sensor configurations by 20%.

**Technologies Used:** C, C++, Python, CAN protocol, Embedded Systems.

#### **ACADEMIC PROJECTS**

# Maharishi International University (2025)

- ELK Stack Monitoring Project: Implemented Elasticsearch, Logstash, and Kibana for enterprise log monitoring, creating dashboards for business (orders, revenue) and technical metrics (errors, exceptions), and evaluated production readiness.
- **Tic-Tac-Toe Game:** Developed a web-based game with user authentication, gameplay, and score tracking using a serverless AWS architecture. Built with React frontend, Express.js backend APIs, Cognito for user management, DynamoDB for persistence, and automated CI/CD for deployment.
- Product Review & Rating Platform: Full-stack web app for browsing products, submitting reviews, and rating items. Built with React + TypeScript frontend, Express + TypeScript backend, MongoDB for data, and deployed frontend on Vercel and backend on Render.

## **EDUCATION**

#### Master of Science in Computer Science

(In progress via distance education; expected completion 06/2027)

Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Cloud Computing, Web Application Programming, Algorithms

# **National Engineering Diploma in Computer Science**

National School of Computer Science (ENSI), Manouba, Tunisia (06/2017)