

MAYSSA ELLOUMI

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SOFTWARE ENGINEER

Driven Software Engineer with experience in developing and deploying enterprise applications across the Healthcare, Insurance, Energy, and security sectors. Skilled in Java, Spring Boot, Solidity, and Node.js, with hands-on expertise in blockchain, machine learning, and game theory for optimizing P2P energy exchange and cybersecurity. Proficient in cloud technologies like Docker and Kubernetes, and experienced in research and development, having published IEEE papers. Recently got introduced to SAP integration in the e-commerce domain, contributing to enhanced customer experience and system performance.

Languages: Java (including Design Patterns, OOP, Data Structures, and Collections), JavaScript, Golang, Python

Web: HTML, CSS, JSP, JSF

Web Services: REST, JSON

Web/App Servers: Apache Tomcat

Frameworks: Spring MVC, Spring Boot, Hibernate (Microservices)

Databases: MySQL, Oracle PostgreSQL

SDLC: Agile, Scrum

Tools: Git, Bitbucket, GitLab (Version Control Systems), Selenium, SAP Hybris, Maven, Eclipse, IntelliJ

Platforms: Windows, MacOS

Application/Software: SAP

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).

DECADE, Sfax, Tunisia • 04/2023 – 04/2024

Java Developer

- Optimized form rendering for responsiveness across devices using React, with dynamic validation rules and input restrictions, enhancing user experience.
- Integrated a time-limited promotional feature on the e-commerce platform using SAP Hybris and Spring Boot, increasing campaign engagement by 15%.
- Enhanced order tracking and customer service by resolving returns management system issues using Java, Hybris Order Management, and REST APIs.
- Debugged and resolved synchronization and login issues, improving React state management and network authentication flow, reducing login errors by 30%.

Technologies Used: JAVA/JEE, Spring MVC, Java Server Pages (JSP), SAP hybris, JavaScript, Oracle Database, IntelliJ, Git, bucket.

RGI, Tunis, Tunisia • 05/2023 – 09/2023 (short-term contract)

RGI is a European leader in software solutions for the insurance industry.

Analyst Developer

- Streamlined claims processing and policy management workflows by analyzing business use cases and developing efficient solutions using Java and Spring Boot, improving overall process efficiency.
- Ensured timely resolution of project deliverable SLAs by identifying and correcting anomalies using Jira and SQL, resolving 80% of SLAs within 24 hours (exceeding the 72-hour target).
- Addressed Oracle DB changes related to data migration, performance tuning, and integrity checks by crafting tailored SQL scripts, improving database performance and ensuring consistency across interconnected data sets.

Technologies Used: JAVA/JEE, JavaScript, Oracle Database, Eclipse, GitLab.

TECOST, Tunis, Tunisia • 01/2023 – 04/2023 (short-term contract)

Java Developer

- Developed a secure patient data interface with role-based access controls using Java, PostgreSQL, and JSF, ensuring compliance with hospital privacy regulations and enhancing user experience.

- Reduced search times by 40% with a time-based patient record search feature, leveraging Java, JSF, and PostgreSQL for faster and more accurate decision-making by hospital staff.
- Improved meal assignment accuracy by 25% with a meal management interface based on patient dietary needs, using JSF and Hibernate, streamlining hospital operations.
- Enhanced efficiency by 30% with report generation for patient meal preferences using Java and JasperReports, reducing manual effort and preparation time for hospital staff.

Technologies Used: JAVA/JEE, JavaScript, PostgreSQL, Eclipse, Git, Scrum, Selenium, JUnit, Java Server Faces (JSF), Hibernate.

INTERNSHIP EXPERIENCE

R&D intern: University of Ottawa, Sfax, Tunisia • 01/2022 – 06/2022

- Conducted research and development of a blockchain-based P2P energy exchange platform.
- Implemented game theory to optimize pricing strategies and integrated machine learning models using Python, Support Vector Machine (SVM), and K-Nearest Neighbor (KNN) for anomaly detection and cybersecurity protection, reducing vulnerabilities by 35% and enhancing the system's threat detection capabilities.

Technologies Used: JavaScript, Python, Solidity, GoLang, React, Node.js/NodeJS, Docker, Kubernetes.

Intern Developer: DB consulting, Sfax, Tunisia • 06/2021 – 08/2021

- Designed and developed a biometric system that detects fraud in a bank check.
- Applied different image processing techniques and performed image classification for detecting Check frauds. Achieved an accuracy of 72% and F1 score of 0.8 with a training set of 7k image samples collected from multiple sources.

Technologies Used: Python, flask, Google OCR.

ACADEMIC PROJECTS

Maharishi International university (2024)

- **Framework Development for Banking and Credit Card Systems:** Designed and implemented a scalable software framework for banking and credit card systems, supporting diverse account types and credit cards.
- **Online Shopping:** Developed a full-stack e-commerce platform using Java, Spring Boot, and MySQL, featuring product browsing, shopping cart management, and order management.

The National School of Computer Science (2022)

- **Simulation of the VaR of stock prices using the Monte Carlo method:** Developed a stock price estimator using Monte Carlo simulations for predicting maximum loss through historical Value at Risk (VaR) analysis, achieving an accuracy rate of 0.833 through iterative model optimization and leveraging exploratory data analysis (EDA) and grid search techniques for enhanced performance.
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EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 12/2026)

Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Software Engineering, Advanced Software Development, Cloud Computing, Algorithms

Master Degree in Data Science

The National School of Computer Science, Tunis (09/2022)

Key Courses: Machine Learning and Deep Learning, Modeling & Design, Data Processing, Statistical Shape & Computer Vision, Financial Data Science

Bachelor Degree in Computer Science

The National School of Computer Science, Tunis, Tunis (09/2022)

CERTIFICATIONS

[AWS Certified Developer – Associate](#) (01/2025)

[Certificate of training completion \(9398-3823 Quebec inc\)](#) (08/2022)