



EL AFIA MOHAMED

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SUMMARY

Motivated and detail-oriented computer science student with strong problem-solving skills and practical experience in full-stack web development, cloud technologies, and machine learning. Proficient in modern frameworks and tools including Angular, React.js, Spring Boot, FastAPI, Docker, and SQL. Solid understanding of software engineering principles, DevOps practices, and cloud platforms such as AWS and GCP.

WORK EXPERIENCE

Python Programming language Instructor Oct 2024 - Aug 2025

Safari Institute, Martil

- Taught programming fundamentals to students aged 11–18 (October 2024 - June 2025), covering topics such as conditional statements, loops, object-oriented programming (OOP), and the Turtle graphics library.
- Instructed adult learners (December 2024 – February 2025) on core programming concepts including data structures, conditional statements, and loops.
- Delivered advanced programming training to adults (July 2025 – August 2025), focusing on data structures, image processing, web development using the Streamlit library, and advanced mathematical problem-solving.

Computer science teacher Dec 2024 - Present

Ministry of National Education, Preschool and Sports Ministry of National Education, Preschool and Sports

- Taught core curriculum subjects at the secondary (college) level in accordance with national education standards.

Research & Development Intern Feb 2026 - Present

3D Smart Factory

- Design and develop an incident prediction system for cloud-native applications using modern technologies, including Python, FastAPI, Next.js, deep learning, Prometheus, and Kubernetes.

EDUCATION

Baccalaureate in physics and chemistry 2019 -2020

Al-Wahda Al-Ifriquia Secondary School

General Academic Studies Degree in mathematics and computer sciences 2021-2024

Faculty of Sciences, Abdelmalek Essaadi University

Licence Degree in mathematics and computer sciences 2023-2024

Faculty of Sciences, Abdelmalek Essaadi University

Master degree in computer engineering 2024-2026

Faculty of Sciences, Abdelmalek Essaadi University

PROJECTS

Library management System

Full-stack application built with Angular and PrimeNG on the frontend, secured via Keycloak authentication; a Jakarta EE backend using JAX-RS and Hibernate with MySQL; containerized using Docker, automated with GitHub Actions CI/CD, and deployed on AWS using ECR, EC2, and S3.

Ecommerce Web application

Academic project featuring a JSP-based frontend with HTML, CSS, and JavaScript; a Jakarta EE backend following MVC architecture with Hibernate and a MySQL database hosted on Aiven; containerized with Docker, automated via GitHub Actions CI/CD, orchestrated using Kubernetes, and deployed on AWS with EKS, ECR, EC2, and S3.

Disease Prediction Web Application

Personal project featuring a React.js frontend styled with Bootstrap, a FastAPI backend for high-performance asynchronous APIs, and AI-driven disease prediction models built in Python using TensorFlow and Scikit-learn.

Travel Management and Recommendation Platform

Final Year Project featuring a React.js frontend with responsive UI design, a Spring Boot backend secured with Spring Security for RESTful services, a collaborative filtering recommendation system built in Python using Pandas and TensorFlow, deployed via FastAPI, and hosted on Google Cloud Platform with Cloudinary for image storage.

Movie recommendation system

Movie Recommendation System built with an Angular frontend, a Spring Boot backend secured with JWT, and a Python (FastAPI) recommendation engine using a KNN machine learning model. The system integrates sentiment analysis to classify user reviews, leverages Kafka for event-driven communication, Redis for caching user preferences to reduce latency, and MySQL for persistent storage. Designed to deliver real-time, personalized movie recommendations based on user behavior.

Fitness mobile application

A mobile fitness tracking application developed using Flutter, with a FastAPI backend for storing workout history. The app utilizes the device's accelerometer and gyroscope to detect movements during workouts, such as squats, and tracks distance traveled during courses.

CERTIFICATIONS

- Oracle certified Professional - Java SE 17 Developer
- Problem Solving, Python Basics, Java Basics, and Intermediate JavaScript – HackerRank
- Azure Fundamentals – Microsoft
- Docker Essentials, Relational Databases with SQL, Python for Data Science, and Containers & Kubernetes Essentials – IBM
- Modern Pedagogical Methods in Teaching Children and Programming – Algorithmics Global
- Docker intermediate , Advanced Git - DataCamp

SKILLS

Frontend : Html / CSS / JS , Angular , React JS , Bootstrap , PrimeNg , Material UI .

Backend : Java / Java EE , Python , Spring boot , Hibernate , Fast API / Flask , Spring security , Spring Cloud , JWT , OAuth2 , Keycloak .

Devops : Git / Github , Docker , Github Actions , Kubernetes , Prometheus , .

Cloud Computing : Azure fundamentals , AWS (ECR , EKS , S3 , EC2) , GCP fundamentals , Aiven cloud .

Programming & Scripting: C, Shell , Php , C#

Mobile : Android studio , xml , Flutter

Databases : MySQL, ORACLE , PostgressDB , MongoDB , Cassandra , Redis , Neo4j , InfluxDB.

LANGUAGES

- Arabic
- French
- English

SOFT SKILLS

- Strong communication skills
- Excellent problem-solving abilities
- High-level critical thinking
- Effective team collaboration