Otmane TOUHAMI

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Professional Summary

Proactive and results-driven Master's student specializing in Distributed Systems and Artificial Intelligence, with hands-on experience developing full-stack applications using Spring Boot, React, Angular, and microservices architecture. Proven ability to deliver robust, production-ready solutions through academic projects and internships. Seeking a Software Engineering internship to apply technical expertise and contribute to innovative development teams.

EDUCATION

ENSET / Higher Normal School of Technical Education

Mohammedia

Master's Degree in Distributed Systems and Artificial Intelligence

September 2024 - Present

ESTC / Higher School of Technology

Casablanca

Bachelor's Degree in Software Engineering and Advanced Administration of Computer Systems and Networks

September 2023 - June 2024

ISFO / Specialized Training Institute for Offshoring

Casablanca

Specialized Technician in Web Full-Stack Development

September 2021 - June 2023

EXPERIENCE

Software Engineer Intern

April 2024 – June 2024

CMGP CAS

Casablanca

- Engineered a full-stack administrative document validation application with Spring Boot REST API and React UI, serving 50+ daily users
- Implemented end-to-end features across the application stack, from back-end business logic and database design to front-end components
- Collaborated with development team using GitLab for version control, code reviews, and agile sprint management
- Participated in the complete SDLC including requirements analysis, development, testing, and production deployment

Full-Stack Developer Intern

April 2023 – August 2023

Start Jobs

Casablanca

- Architected and deployed a complete stock management system using Laravel, React, and Inertia.js, improving inventory tracking efficiency by 40%
- Designed and optimized relational database schema in MySQL, ensuring data integrity and efficient query performance
- Developed a modern corporate website for a key client using React and TypeScript, replacing their legacy system and improving page load times

Projects

BudgetWise+ | Spring Boot, React, Spring Security, JWT, MariaDB, Tailwind CSS

June 2025 – July 2025

- Developed a full-stack personal finance tracker with secure REST API using Spring Boot and dynamic React front-end
- Implemented JWT-based authentication and authorization with Spring Security to protect user data and endpoints
- Engineered an interactive dashboard with Recharts to visualize financial trends and provide real-time analytics
- Integrated third-party APIs (Twilio, SendGrid) for SMS and email budget notifications

Medical Report Generator | Python, CrewAI, FastAPI, Next.js, RAG, Docker

- Architected a multi-agent AI system using CrewAI to automate generation of formal French medical reports from unstructured notes
- Developed FastAPI back-end for asynchronous processing and Next.js front-end with text and voice input capabilities
- Implemented Retrieval Augmented Generation (RAG) to enhance information extraction accuracy from custom medical knowledge base
- Designed workflow where AI agents handle transcription, classification, content generation, and validation to produce structured '.docx' reports

Microservices Architecture | Java, Spring Boot, Spring Cloud, Eureka, OpenFeign, Docker

October 2025

- Designed and implemented complete microservices ecosystem using Spring Boot & Spring Cloud to demonstrate enterprise patterns
- Implemented core infrastructure services including Eureka discovery server, centralized Config Server, and Spring Cloud Gateway
- Developed independent business services (Customer, Inventory, Billing) following "database per service" pattern
- Enabled inter-service communication using declarative REST clients with OpenFeign, fully integrated with service discovery

e-Gestion | Laravel, React, Inertia.js, Tailwind CSS, MySQL

April 2023

- Built comprehensive management system for educational institutions to streamline administration of courses, trainers, and trainees
- Implemented role-based access control (Admin, Trainer, Trainee) with tailored dashboards using Spatie Laravel Permission
- Created seamless single-page application experience integrating Laravel back-end with React front-end using Inertia.js
- Engineered key features including schedule management with PDF export and automated user credential notifications

Projects Management System | Node.js, Express, TypeScript, React, MongoDB, JWT

May 2025

- Developed a full-stack collaboration platform for teams, featuring workspaces, projects, and task management
- Built a secure RESTful API using a modern stack with Node.js, Express, TypeScript, and Mongoose for data modeling
- \bullet Implemented robust user authentication and authorization using Passport.js, including local credentials and Google OAuth 2.0
- Created a responsive UI with React and Shadon UI, using React Query for efficient server state management

CERTIFICATIONS

ALX Software Engineering Programme (Back-end Specialization)

ALX

Issued July 2025 | Verify|

Linux Essentials

Cisco Networking Academy

Issued May 2025

Blockchain: Understanding Its Uses and Implications (LFS170)

The Linux Foundation

Issued May 2025

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, PHP, SQL

Back-End Technologies: Spring Boot, Node.js / Express.js, NestJS, Laravel, Django, FastAPI, Flask

Front-End Technologies: React, Next.js, Angular, Tailwind CSS, Inertia.js, Shaden UI

Databases: MongoDB, MySQL, PostgreSQL, MariaDB

DevOps & Developer Tools: Docker, Git, GitHub, GitLab, Postman, Maven, JWT, RESTful APIs

IDEs & Platforms: IntelliJ IDEA, VS Code, WebStorm, Google Cloud Platform