Ayoub Chraiti

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Summary

- Software engineering student skilled in full-stack development and building scalable, high-performance applications. Highly motivated to learn, solve complex technical challenges, and apply knowledge in real-world environments.

Projects

Live Chat Web App | TypeScript, Fastify, WebSocket, SQLite, Tailwind CSS

- Developed a real-time chat application enabling instant messaging across multiple channels by using WebSockets and the Fastify Framework for efficient server-client communication.
- Optimized backend performance with asynchronous processing, reducing message delivery latency by 40%.
- Crafted a responsive and intuitive frontend UI with Tailwind CSS, HTML, and Vanilla CSS, improving user experience across devices.

Full-Stack Web App: Pong Game | Fastify, Node.js, TypeScript, SQLite, JWT, 2FA

- Engineered a secure multiplayer Pong game to enable real-time, dynamic gameplay by implementing WebSocket communication for low-latency interactions.
- Built a modular backend with Fastify (Node.js) supporting JWT-based authentication and two-factor authentication, enhancing security and user trust.
- Containerized the application with Docker, streamlining development and deployment across environments.

Containerized Web Hosting Infrastructure | Docker, Docker Compose, Nginx, MariaDB, WordPress

- Architected a secure and scalable multi-container web hosting infrastructure orchestrated with Docker Compose to automate service deployment.
- Enhanced security by configuring HTTPS with OpenSSL certificates, ensuring 100% encrypted data transmission.
- Automated environment setup using startup scripts and environment variables, reducing manual errors and accelerating deployment by 70%.

TECHNICAL SKILLS

Programming Languages: Java, Python, C++, JavaScript, TypeScript, Bash

Frameworks and Libraries: Fastify, Node.js, Spring Boot, React Cloud & Containers: Docker, Kubernetes, Docker Compose, Nginx

Testing Tools: Postman, GDB Version Control: Git, GitHub

Databases: PostgreSQL, MariaDB, SQLite, MongoDB, Redis

EXPERIENCE & CERTIFICATIONS

Python & C++ Certifications

CodinGame

Algorithmic problem solving and optimization challenges

Jul~2025

- Tackled real-world coding problems with a strong emphasis on data structures, complexity, and performance optimization.
- Used both C++ and Python to implement efficient algorithmic solutions under competitive constraints.

Machine Learning Bootcamp

1337 Coding School

Hands-on training with Python, Pandas, Scikit-learn, and ML pipelines

Feb 2025

- Developed and evaluated supervised learning models using Scikit-learn and real-world datasets.
- Applied data preprocessing, feature engineering, and cross-validation techniques to improve model accuracy.

Intro to Data Science

IBM - SkillsBuild

IBM SkillsBuild Program - Foundations of Data Science

May 2024

- Explored the role of data scientists and the data science lifecycle, from data collection to visualization.
- Gained a beginner-level understanding of data analysis tools and the importance of data-driven decision-making.

EDUCATION

Mohammed VI Polytechnic University – 1337 School

2023 - Present

Architect in Digital Technologies

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Mohamed Zerktouni High School

Casablanca, Morocco

Ben Guerir, Morocco

 $Scientific\ Baccalaureate$

2019 - 2022