

Ayoub Chraiti

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– Motivated software developer seeking a PFE internship, with a strong foundation in C, C++, Java, JavaScript, and TypeScript. Experienced in building RESTful APIs and containerized microservices, with hands-on exposure to agile development environments. Quick to learn new technologies and committed to delivering high-quality, scalable software solutions through collaboration and continuous improvement.

EDUCATION

Mohammed VI Polytechnic University - 1337 Coding School

Digital Technology Architect

Ben Guerir, Morocco

2023 – present

Mohamed Zerktouni high school

Scientific Baccalaureate

Casablanca, Morocco

2019-2022

PROJECTS

HTTP Server with CGI & Event-Driven I/O | *C/C++, Python, Postman*

- Engineered a high-performance multi-server HTTP server, efficiently supporting virtual hosts and numerous concurrent clients, enhancing scalability.
- Implemented core HTTP methods (GET, POST, DELETE) with support for dynamic routing, RESTful design, and container-based deployment.
- Served static files and directory listings based on user-defined server configurations.
- Designed a flexible configuration-based system for route handling, error pages, and directory listing.
- Significantly boosted server performance and responsiveness by integrating epoll for highly efficient non-blocking I/O and client multiplexing.

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

- Built a secure, modular web infrastructure using multiple containers orchestrated with Docker.
- Designed custom Dockerfiles for each service to support isolated development environments.
- Enhanced security by implementing HTTPS traffic encryption through the generation and configuration of SSL certificates using OpenSSL, achieving 100% secure data transmission.
- Managed persistent storage with Docker volumes to preserve data across container restarts.
- Automated deployment via environment variables and startup scripts for consistent setup.
- Created custom Docker networks to isolate services and enhance container-level security.

Full-Stack Web Application: Pong Game | *Fastify, TypeScript, WebSockets, SQLite, Docker, JWT, 2FA*

- Engineered a secure multiplayer Pong game, implementing real-time communication capabilities using WebSockets for dynamic and responsive gameplay.
- Built a modular backend in Fastify (Node.js) with support for JWT-based authentication and 2FA.
- Explored Kafka and Airflow for potential real-time event streaming and task orchestration.
- Persisted user and chat data in SQLite, with automated migrations on service startup.
- Containerized all services and orchestrated deployment with Docker Compose.

TECHNICAL SKILLS

Programming Languages: Python, C++, Java, JavaScript, TypeScript, Bash, HTML/CSS

Frameworks & Libraries: Fastify, Node.js, Spring Boot, React

Cloud & Containers: Docker, Kubernetes, Docker Compose, Nginx, AWS

Testing Tools: Postman, Pytest, Selenium (basic)

Databases: PostgreSQL, MariaDB, SQLite, MongoDB, Redis

Version Control: Git, GitHub

EXPERIENCES

ML Learning Bootcamp

Hands-on bootcamp covering Python, Pandas, Scikit-learn, and ML pipelines

Remote

Dec 2024 – Feb 2025

ALX Software Engineering Program (Incomplete)

Completed foundational modules in C, Linux, Shell scripting, Git, Data Structures

Remote

Mar 2022 – Oct 2023