Mustapha Jlem Software Engineer

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EDUCATION

1337 Coding School (42 Network)

Morocco

- Completed rigorous project-based curriculum focused on problem-solving, algorithms, and full-stack development in a peer-driven environment.
- Intensive peer-driven curriculum focused on algorithms, data structures, system design, and full-stack development.
- Built and deployed real-world projects emphasizing problem-solving, scalability, and software architecture.

EXPERIENCE

Dynamic Horizon Nov. 2024 – Dec. 2024

ERP Developer Intern

- Developed an API to integrate Odoo with ChatGPT, enabling automated responses and enhanced ERP functionalities.
- Designed and implemented a payslip PDF template in Odoo, improving document generation efficiency.

PROJECTS

Full-Stack Web App

- Developed a real-time multiplayer Pong game platform using NestJS for backend operations and Next.js for frontend development
- Integrating **PostgreSQL** for robust data management and implementing comprehensive security measures, including **OAuth** for user authentication.
- Implemented real-time communication features using WebSocket to enable live chat functionalities, significantly enhancing user interaction and engagement on the platform.

Custom Web Server

- Built a custom **HTTP** server in **C++**, supporting multiple HTTP methods, file uploads, and static content serving.
- Implemented **non-blocking I/O operations** for scalability and performance similar to Nginx.
- Added CGI execution, session management, and advanced error handling for robustness.

Docker Infrastructure

 Developed and managed Docker-based infrastructure using custom Dockerfiles and Docker Compose, orchestrating essential services such as NGINX, WordPress, and MariaDB.

Minishell

- Developed a Bash-like command-line interface supporting built-in commands (cd, echo, exit), piping, and redirections.
- Implemented process management, environment variable handling, and system call execution (fork, execve).

SKILLS

- Languages: C++, C, JavaScript, TypeScript, Python, Bash.
- Technologies: Docker, Linux, Node.js, Express, Nest.js, Flask, Next.js, Tailwind CSS, React, HTML, CSS, GIT, GitHub, GNU Make, PostgreSQL, Prisma.