Marouane Addou

Software Developer — Python Full Stack

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LeetCode: maddou - Codeforces : marwanaddou123 - Portfolio : maddou-portfolio.vercel.app

About Me

Passionate about software engineering and deeply interested in understanding how systems work at a fundamental level. I enjoy working with modern technologies and solving coding challenges to enhance my problem-solving skills and grow as a developer

Technical & Soft Skills

- **Backend Frameworks / Libraries:** Django, Django REST Framework (DRF), Express, Hono, Zod
- **Frontend**: HTML, CSS, Tailwind CSS
- **Languages:** Python, JavaScript, TypeScript, C, C++ 98
- **Databases:** PostgreSQL, Redis , Prisma ORM
- **Tools**: Git, Docker, Linux (Notions de base), Postman
- **Soft Skills:** Teamwork ,debugging, problem-solving, adaptability, and quick learning of new technologies

Experience

- **Escodeve digital Factory**
  Intern Backend Developer
  - Development of two back-end applications in Node.js with TypeScript, using the Hono and Express.js frameworks.
  - Data modeling and access management with PostgreSQL and Prisma ORM
  - Deployment of applications on Cloudflare Workers for fast and scalable execution
  - Writing technical documentation with Swagger (OpenAPI).

Projects

- **Multiplayer Pong Game** Rôle: Full Stack Developer
  - Developed the server-side logic for a multiplayer Pong game using **Python (Django)** and **WebSockets** to enable real-time communication between players
  - Implemented a **matchmaking system** to dynamically pair users.
  - Used **Redis** to manage game sessions and synchronize player states efficiently.
  - Created the client-side interface in **JavaScript** to handle player actions, game rendering, and server communication.

- **Access Control Application** Rôle : Back-End Developer
  - Developed the back-end application for gym access control, integrating **software applications** and **ZKT hardware controllers**.
  - Key functionalities included **user account management**, **membership payment processing**, and **activity logging**.

- **Back-End Development for Project Management Application** Role: Back-End Developer
  - Developed the back-end of a project management application with features for **task assignment**, **team management**, and **daily work logs**.
  - Implemented **JWT authentication** with **role-based access control** for secure user access.
  - Deployed the application on **Cloudflare Workers** for high scalability and performance.

- **Web Server** Rôle: Back-End Developer
  - Built a custom web server from scratch with a team using **C++98**.
  - Supported HTTP/1.1 methods **GET**, **POST**, and **DELETE**.
  - Implemented **non-blocking multiplexing** to handle multiple simultaneous client connections efficiently.
  - Designed and parsed HTTP/1.1 requests to serve **static pages** and **dynamic content** via **CGI**.
  - Effectively managed **HTTP error handling** and custom **error pages**.

Formation

- **School 1337 - Mohammed VI Polytechnic University** <div align="right">Tetouan, Maroc</div>
  Architecte des Technologies Numériques <div align="right">2022 - 2025</div>