# Mohamed Amine IGUIJI

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## Profile

I am a dedicated student at 1337 School and Ibn Zoher University simultaneously, where dual enrollment has accelerated my learning. My enthusiasm for technology drives me to continuously develop my skills and tackle new challenges.

#### EDUCATION

## Ibn Zohr University, Agadir 2023 - 2025Final year 1337 (42 NETWORK), Khouribga 2023 - 2025Final year Projects

## Unix Shell Interpreter | C, Unix, Lexical Analysis, Tokenization, Algorithms

2024

- Developed a Unix shell interpreter capable of parsing and tokenizing commands, achieving functionality comparable to Bash.
- Implemented essential shell commands, such as cd, echo, pwd, and export, enhancing usability for developers.
- Added support for input/output redirection and piping, allowing more complex command-line operations.
- Managed system signals effectively to handle interruptions, ensuring stability in long-running processes.
- Enabled management of environment variables for dynamic configurations during runtime.

### **Docker Infrastructure** | Linux, Docker, Apache, MariaDB, Redis, Prometheus, Grafana

2024

- Built a Docker-based infrastructure to orchestrate a multi-service environment, enhancing deployment speed and scaling.
- Configured and deployed essential services like Apache and MariaDB, facilitating the deployment of a fully functional WordPress site.
- Implemented monitoring with Prometheus and Grafana for real-time system metrics and improved incident response.
- Regularly updated systems with security patches and established backup strategies to ensure uptime and data safety.

#### **Graphical Programming** | C, OpenGL, Raycasting, Linux, GDB

2024

- Developed a 3D gameplay engine focusing on real-time rendering of textured environments and sprites.
- Implemented real-time rendering of textured walls and sprites using OpenGL, improving rendering efficiency by
- Created a parser for map layouts and textures, enabling easier customization and faster level creation.
- Developed collision detection and projecting a 3D environment onto a 2D screen using raycasting algorithms, reducing gameplay bugs by 25%.

## Secure Web Server | C++, Linux, Sockets, Postman, Secure Programming, CGI

Ongoing

- Developing a web server from scratch using C++ socket programming, efficiently handling up to 1,000 concurrent requests.
- Built a custom HTTP parser to support various HTTP methods, enhancing server compatibility with web standards.

## Technical Skills

Languages: C, C++, Shell Scripting, SQL

Technologies: GDB, Makefile, Git/GitHub, Linux OS, Postman, MariaDB, Docker, Prometheus, Grafana

Soft Skills: Quick Learning, Critical Thinking, Leadership, Self-Starter

Spoken Languages: Arabic, French, English