# **ACHRAF BIZYANE**

# Backend Developer | C++/Python Software Developer

#### **SUMMARY**

Backend developer with a strong foundation in C++ and Python, built through rigorous hands-on projects at 42's intensive program. Skilled in developing real-time applications and efficient web servers, with experience in system programming, networking, and containerization. Focused on creating scalable and reliable solutions, I enjoy problem-solving and look forward to contributing my technical expertise to a collaborative, mission-driven team.

#### **PROJECTS**

#### WebServer

### Description

Developed an HTTP server in C++ capable of handling real browser requests, with a focus on efficiency and scalability.

 Skills: Networking, Object-Oriented Programming, HTTP Protocol, Socket Programming, Design Patterns, C++ Programming

# **Real-Time Chat Application**

## Description:

Developed a backend for a real-time chat application using Django, Django REST Framework, and integrated APIs. Ensured seamless communication and user authentication, contributing to a robust, interactive user experience.

 Skills: Django, DRF, Real-Time WebSockets, API Development, Backend Development

# Inception

#### **Description:**

Virtualized multiple Docker containers to simulate a web service infrastructure, incorporating web servers, databases, and networking layers. Demonstrated proficiency in Docker and advanced system administration.

• Skills: Containerization, Virtualization, Docker, Networking, DevOps, Scripting

#### Minishell

#### Description:

Created a simple Unix shell that supports process execution, piping, redirection, and signal handling.

 Skills: System Programming, Process Management, Inter-process Communication, Algorithms, C Programming

## **EDUCATION**

## 1337 Coding School (42 Network)

Currently progressing through the Common Core with 93% completion

## LANGUAGES

English Advanced •••• Arabic Native ••••

French Beginner • • • • •

#### **SKILLS**

- **Version Control**: Git (branching, merging, pull requests, repository management)
- System Programming: Unix systems, processes, threads, inter-process communication (pipes, signals), TCP/UDP sockets
- Networking: IP addressing, subnets, routing, HTTP servers, IRC servers, web services
- **Object-Oriented Programming**: Classes, inheritance, templates, memory management, polymorphism (C++, Python)
- Virtualization, Infrastructure automation,
  Basic system administration (security and user management), Monitoring and Logging (ELK Stack, Grafana ...), Server Management
- Web Development: Client-server architecture, HTTP protocol, MVC, backend development with Django, Websockets, DRF
- Collaboration & Teamwork: Effective communication in team projects, task delegation, conflict resolution, peer code reviews
- Problem Solving & Rigor: Debugging complex systems, testing and validation processes, handling edge cases in algorithms
- Soft Skills: Adaptability, critical thinking, project management, self-learning, time management under pressure

#### **PASSIONS**

AI and Machine Learning

₩ Kernel Development

Cloud and DevOps Engineering