ADHAM CHERKAOUI EDDEQAQI

Full-Stack & Desktop Software Developer

WEB & DESKTOP

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TECHNICAL SKILLS

LANGUAGES & CORE

`PHP 8` `C# (.NET)` `JavaScript ES6+` `Node.js` `SQL (MySQL / Postgres)` `Python` `HTML5 / CSS3`

DESKTOP & IOT SYSTEMS

`WPF / XAML` `Windows WASAPI` `WinRT BLE (GATT)` `UPnP / DLNA` `ONVIF / WebRTC`

WEB & REAL-TIME ARCHITECTURE

`Socket.IO` `WebRTC (P2P)` `Tailwind CSS` `Bootstrap 5` `RESTful APIs` `PWA`

SECURITY & DEVOPS

`Git / GitHub` `Docker` `BCrypt / OWASP` `UML Modeling` `Inno Setup`

EDUCATION

Specialized Technician Diploma
MIAGE Rabat · Software Development
2024 – 2026
Full-stack software engineering, relational database architecture (MySQL / PDO), OOP in C# and PHP, and software design patterns.

High School Baccalaureate
Lycée Abdellah Guennoun · Rabat
2023 – 2024
Literature & Human Sciences. Analytical rigor, structured communication, and methodical problem formulation.

KEY STRENGTHS

- ✓ Hybrid Web & Desktop Architecture
- ✓ RESTful APIs & Web Services
- ✓ Normalized SQL & PDO Transactions
- ✓ Process Automation with Python

LANGUAGES

Arabic	Native
English	Intermediate (B1)
French	Basic (A2)

Results-driven **Full-Stack & Desktop Software Developer** holding a Specialized Technician Diploma in Software Development (MIAGE Rabat). Proven track record designing, building, and deploying real-time web applications (Node.js, Express, Socket.IO, WebRTC), modern web platforms (PHP 8, Tailwind CSS, JavaScript ES6+), and native Windows desktop software (C# .NET, WPF/XAML) backed by normalized relational databases (MySQL, PDO) and modern API integrations. Combines analytical rigor with structured problem-solving to deliver secure, user-centric, and business-ready software solutions.

KEY PROJECTS & EXPERIENCE

Happy Gym PRO — Enterprise Fitness & AI Nutrition Platform

2026

END-OF-STUDIES PROJECT (PFE)

Lead Software Developer · Architecture, Web & Desktop Engineering

- Architected decoupled hybrid ecosystem: responsive Web application (PHP 8, Tailwind CSS, JS ES6+) and native Windows Desktop suite (C#, .NET, WPF/XAML) operating on shared MySQL database with role-based access.
- Integrated **Google Gemini 1.5 Flash API** for automated caloric diet generation (BMR/TDEE) and automated 6-digit OTP verification via **WhatsApp REST API (OpenWA)**.
- Packaged with Inno Setup, hardened with BCrypt encryption, RFID check-in support, and comprehensive UML specification.

STACK: `C# WPF` `PHP 8` `Gemini AI` `MySQL` `Tailwind CSS` `WhatsApp API` `Inno Setup`

Watch Together — Real-Time Synced Media & Voice PWA

2026

REAL-TIME WEB & PWA

Full-Stack & Real-Time Systems Developer · Web & PWA Application

- Architected Progressive Web App with sub-second synchronized media playback via **Socket.IO** and low-latency peer-to-peer **WebRTC mesh voice chat rooms**.
- Developed smart drift correction algorithm (<1.5s tolerance to master clock), directional echo prevention, screen sharing, and multi-source playback (MP4/HLS, YouTube).

STACK: `Node.js` `Express` `Socket.IO` `WebRTC` `JavaScript ES6+` `Tailwind CSS` `SQLite`

DualAudio Sync & DualLumi PRO — Desktop IoT & Audio Engines

2025 – 2026

DESKTOP IOT & LOW-LEVEL

Systems & Desktop Developer · Windows Hardware Integration

- **DualAudio Sync:** Zero-echo audio engine capturing raw Windows master mix via **WASAPI Loopback** and broadcasting synchronized streams to Sonos Play:1 (Wi-Fi UPnP/DLNA) and Bluetooth speakers with millisecond calibration slider.
- **DualLumi PRO:** Frameless glassmorphic Windows desktop controller communicating with BLE lighting (ELK-BLEDOM LED strips & smart bulbs) via WinRT GATT protocol and ambient screen color synchronization.

STACK: `Python` `WASAPI Loopback` `UPnP / DLNA` `WinRT BLE` `WebSockets` `Flask`

CyberOps Academy — Interactive Cybersecurity Learning Platform

2025 – 2026

WEB & SECURITY PLATFORM

Web & Security Developer · Open-Source Project

- Engineered interactive cybersecurity learning deck: CTF challenge engine, MITRE ATT&CK matrix navigator, live in-browser security playgrounds (crypto, SQLi, packet inspection), and AI security mentor.
- Implemented normalized PostgreSQL schema, secure session management, Docker containerization, and zero-dependency micro-architecture.

STACK: `PHP 8` `PostgreSQL` `CTF Engine` `MITRE ATT&CK` `JavaScript ES6+` `Docker`

Business Management Systems (Hospitality & Pharmacy)

2025 – 2026

INTERNSHIP & ENTERPRISE

Full-Stack Developer · Internship & Client Solutions

- **Guest House System (Internship):** Designed and built full-stack web management system for a guest house: relational SQL database, booking workflows, customer tracking, and automated invoicing.
- **PharmaCare PRO:** Built pharmacy management suite with patient records, inventory tracking, and **Gemini Vision OCR** for digitizing physical prescriptions into normalized schemas.

STACK: `PHP OOP` `C# .NET` `MySQL` `Gemini OCR` `Bootstrap 5`