Sofiene ZAYATI

Embedded Systems Graduate & Web Technologies Engineering Student

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📞 55 321 315

Social networks

in Sofiene Zayati

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A relentless engineer obsessed with fusing hardware and software into singular, intelligent systems. My foundation in embedded programming is enhanced by growing skills in full-stack web technologies, allowing me to build complete, end-to-end solutions. I am ready to apply AI and machine learning in projects—whether creating smarter, more responsive IoT devices or building data-driven user experiences on the web. I'm not just looking for a role; I'm here to build, innovate, and deliver results.

Languages

Arabic
Native

English
Advanced

French
Fluent

German
› Goethe-Zertifikat A2

Programming Languages

- C / C++
- Java
- Python
- PHP
- JavaScript

Web & Database Technologies

- HTML, CSS
- MySQL
- PHP
- Firebase
- REST APIs & Swagger

Frameworks & Architecture:

- Symfony
- JavaFX
- MVC Pattern
- Multi-tier apps

Project Management & Tools

- Scrum
- ClickUp
- Trello
- Git & GitHub
- Visual Studio Code
- IntelliJ IDEA
- PlatformIO
- Arduino IDE

Education

Engineering Degree in Web and Internet Technologies TWIN
Since September 2024
ESPRIT : Ecole Sup Privée d'Ingénierie et de Technologies Ariana Governorate, Tunisia

Bachelor's Degree in Embedded and Mobile Systems
From September 2021 to June 2024
Higher Institute of Technological Studies of Rades Radis, BA, Tunisia

Baccalaureate in Technical Sciences
From September 2017 to June 2021 Lycée Technique Farhat Hached Rades Radis, BA, Tunisia

Work experience

Internship Embedded Systems & Software Developer
From February 2024 to May 2024 Scheidt & Bachmann Megrine
Creation of smart parking using LPR and mobile app access MacroPark.

Internship Hardware & Software Project Manager
From January 2023 to February 2023 Scheidt & Bachmann Megrine
Creation of Smart Lock for the Company

Internship Web Development
From January 2022 to February 2022 Sotunol Megrine
Website Development for the company using HTML CSS JavaScript

Projects

InnoMall – Integrated Mall Management System
- Developed a full-stack mall management platform (JavaFX desktop + PHP Symfony web) for admins, shop owners, and clients.
- Built an IoT multi-floor parking system with real-time sensor tracking, live spot status (free, reserved, occupied), and SMS/email confirmations.
- Integrated Stripe API for secure online payments with order tracking.
- Created an AI-powered chatbot for mall inquiries using Gemini API.
- Added event announcements, admin dashboards, PDF report exports, and revenue/occupancy analytics.
- **Tech Stack:** Symfony 6, Java, JavaFX, MySQL, Stripe API, Gemini API, Twilio, IoT Sensors

MacroPark – Smart Parking System
- Built an LPR-based smart parking system with BLE-enabled mobile app fallback for access control.
- Programmed ESP32 (WT32-ETH01) to control 4 independent barriers via MQTT and BLE, with timed auto-close logic.
- Added hybrid Ethernet/WiFi failover, OTA firmware updates, and JSON config via SPIFFS and a WiFiManager web portal.
- **Tech Stack:** C++, MQTT, BLE, LPR, OTA, SPIFFS, WT32-ETH01

ZenithHouse – Smart Home Control System
- Created a home automation system for lights, climate, and access control via mobile app.
- Used ESP32 microcontrollers per room and Firebase for real-time sync and user management.
- **Tech Stack:** C++, Firebase

Smart Unlock
- Designed a keyless employee access system using a BLE mobile app.
- Connected via MQTT to control door lock hardware instantly.
- **Tech Stack:** C++, BLE, MQTT

SPS (Smart Parking Solution)
- Developed a mobile app to display real-time parking availability
- Aimed to minimize user search time and improve convenience.
- **Tech Stack:** Firebase, *Java, XML*

Smart Agri (IoT)
- Built an IoT system to monitor temperature and humidity for agriculture.
- Used Firebase for real-time data viewing in a mobile app.
- **Tech Stack:** C++, IoT Sensors, Firebase