Details

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HADDOUCHE Oussama

Motivated computer engineering student seeking a challenging internship to apply my knowledge and develop my skills. Passionate about AI, computer vision, and embedded systems. Seeking an internship where I can apply my skills in machine learning, image processing, and IoT to develop real-world solutions. Experienced in C++, Python, and Linux, with hands-on projects in AI-driven systems and software development.

I am also creative and artistic, as evidenced by my personal projects in game design and music creation. Adaptable and eager to learn, I am capable of working independently and in a team.

Nationality	**Moroccan**	Place of birth	**Casablanca**
Date of birth	**11/07/2002**		

Formation

Engineering Diploma, National School of Applied Sciences (ENSA), Safi
September 2021 — July 2026

Relevant courses:
- System Engineering
- Computer-Aided Design
- Advanced Programming
- Project Management

Links

[My LinkedIn profile](#)

[My GitHub profile](#)

Skills

Technical Skills

I have a strong foundation in **C++ and Python**, with hands-on experience in **machine learning, computer vision, and mathematical modeling**. My expertise includes **developing AI-driven solutions using OpenCV, TensorFlow, and PyTorch**, as well as implementing efficient algorithms for **data analysis and real-time processing**.
I am also proficient in **Linux environments, shell scripting, and software optimization**, ensuring that my AI models run efficiently in **resource-constrained systems**. While my past projects have primarily focused on **software development**, I am eager to expand into **embedded AI and IoT**, leveraging my ability to quickly **adapt to new technologies** and **problem-solve complex technical challenges**.

Soft Skills

Beyond technical skills, I am **a highly analytical thinker** with a strong ability to **troubleshoot, learn independently, and collaborate effectively**. I approach problems with a **creative and solution-oriented mindset**, ensuring that I can contribute meaningfully to **innovative AI-powered systems like autonomous drones and smart detection platforms**.

Personal Projects

— Mathium Interpreter (C++)
(Work in Progress)

Description

Developed an **interpreter for Mathium**, a custom programming language designed for **mathematical expressions and calculations**. This interpreter implements features such as support for functions, variables, and arithmetic or logical operations. *Link*

Skills

Object-oriented programming (C++), syntax analysis, code execution.

Tools

CMake, Git, Boost C++ Libraries, Visual Studio Code

— Bluetooth-Controlled Car
(Personal Experiment)

Description

Developed a **Bluetooth-controlled car** using **Arduino Uno** that could move in all directions via an **Android app**. The system used **ultrasonic sensors** to detect obstacles, preventing collisions by automatically stopping and triggering an alert. The project focused on **wireless communication, real-time sensor integration, and embedded programming** for autonomous decision-making.

Skills

Embedded Systems Development (Arduino, C++), Bluetooth Communication, Real-Time Sensor Processing, Team Collaboration & Problem-Solving

Tools

Arduino Uno, HC-05 Bluetooth Module, Ultrasonic Sensor

— Private Nursing School Website
(Under Development)

Description

I designed and developed a user-friendly **website for a private nursing school**. This project implemented my frontend and backend development skills. I used **React** to create a responsive user interface and **NodeJS** to handle server-side functionalities. *Link*

Skills

Frontend development (React), backend development (NodeJS), user interface (UI) design.

Tools

HTML, CSS, React, NodeJS, TypeScript, React Bootstrap, Visual Studio Code, Photoshop, Illustrator

— PersonalHub (in C)

Description

I participated in the development of **PersonalHub**, a personal electronic agenda similar to a planner. This project was carried out in C and used the PDCurses library to create console mode interface elements. Interface elements such as buttons and text fields were developed from scratch, allowing for a complete customization of the user experience. The project also implements a registration and login system using these same interface elements and using common encryption algorithms to secure user data. *Link*

Skills

Programming in C, console mode interface development (PDCurses), user interface (UI) design.

Tools

PDCurses Library, C, GCC

Languages

◯ **Arabic** Native Speaker

◯ **English** Highly Proficient

◐ **French** Good Command

Interests

- Mathematics & Physics
- Art & Design
- Game Design & Development
- Animation