

# AYOUB HSAINE

Future robotics and cobotics engineer looking for an internship starting in February.

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Ayoub Hsaine

EL JADIDA, Morocco  
Portfolio

Driver's license B.



## PROFESSIONAL EXPERIENCE

### On Site Research Internship

Laboratory of Systems Engineering, Versailles (LISV) at Paris-Saclay University | June 19 to July 26, 2023

- Interpretation and analysis of EMG signals involve filtering and feature extraction, as well as calculating and estimating elbow angle using MATLAB.
- Data collection for triceps and biceps muscles, with and without a 2 kg load, as well as MVC.
- Technical skills acquired: interfacing with EMG signals, Vicon camera system, marker placement, and the use of 3D Vicon software.

### Remote Application Internship

CHU, Fes | August 1 to August 31, 2022

- Development of a mobile application addressing the prescription validation problem.

### Remote Summer Internship in China

Global Summer School on SDGs at Zhejiang University | August 1 to August 15, 2022

- Intelligent transportation and smart mobility.
- IoT and intelligent service robots.

### On-Site Initiation Internship

Floquet Monopole, Fes | July 1 to July 31

- Familiarization with the vehicle disc production line through various operations.

## SKILLS

Programming Languages: C/C++, Java, Python, and MATLAB

C++ GUI with QT Operations Research Fuzzy Logic Ubuntu

Arduino, Raspberry Pi VHDL LabVIEW Simplify3D

Control Systems: Ladder, Grafset, GEMMA Sensor Technology

ML and DL Altova, MongoDB Signal and Image Processing

Project Management, Strategic Management, innovation management

Localization and Navigation Methodology (Kalman Filter, SLAM)

Robotics System Design and Modeling Computer Vision

Android studio Catia ROS Blender 3D

drone design and modelling

## PARA-UNIVERSITY ACTIVITIES

- Robotics Workshop Leader, Treasurer and Trainer

## EDUCATION

State Engineer in Robotics and Cobotics | Sep 2021-Present

UEMF, EIDIA, Fes

Integrated Preparatory Cycle | Sep 2019 - June 2021

UEMF, EIDIA, Fes

Bachelor's Degree in Physical Sciences | June 2019

Mohammed EL Ratrai High School, EL Jadida

## ACADEMIC PROJECTS

- Safebox using LabVIEW MyRIO.
- PepperChat: Integration of ChatGPT for intelligent conversations with Pepper robot.
- OpenCV and OCR for parking management.
- Comparative Study: Path planning using search algorithms: DFS, BFS, and A\*.
- RoverBot: A mobile robot designed with mecanum wheels.
- Smart Home.
- COVID-19 Detection using Support Vectors, KNN, and Perceptron.
- Differential Drive Control using Fuzzy Logic Controller.
- Design and VHDL Simulation of an Electronic Lock.
- Real-time Object Detection with MATLAB.

## CERTIFICATIONS

- Introduction to ML and DL | Kaggle
- Specialization Embedding Sensors and Motors | Coursera
- Image Processing and Signal Processing | MathWorks
- Introduction to IA | IBM

## LANGUAGES

Arabic French English Spanish