AYOUB HSAINE

Robotics and Cobotics Engineer, seeking first employment.

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in Ayoub Hsaine   ⌂ Ayoub Hsaine   ⊘ Portfolio   🚗 Driving License B

PROFESSIONAL EXPERIENCES

Final Year Internship
Generation Robots Bordeaux| March 1 to August 30, 2024
- The internship focuses on developing, implementing, and testing algorithms for the GR100 robot. The goal is to enable the robot to verify the integrity of outdoor fences. My task is to integrate new detection models into the robot to enhance security by detecting any holes in wire meshes.

Research Internship
Laboratory of Systems Engineering of Versailles (LISV) at Paris-Saclay University | June 19 to July 26, 2023
- The internship focuses on the interpretation and analysis of EMG signals, as well as the calculation and estimation of the elbow angle using MATLAB. This involves data collection for the triceps and biceps muscles, both with and without a 2 kg load, as well as MVC.

Application Internship
CHU, Fez | August 1 to August 31, 2022
- Development of a mobile application to solve the problem of prescription validation.

Summer Internship in China
Global Summer School at Zhejiang University | August 1 to August 15, 2022
- Intelligent transport and smart mobility.
- IoT and intelligent service robots.

Observation Internship
Floquet Monopole, Fez | July 1 to July 31
- Familiarized with the vehicle disc production line through various operations.

SKILLS

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

GUI in C++ with QT | Operations Research | Fuzzy Logic

Ubuntu | Arduino, Raspberry Pi | VHDL | LabVIEW

Simplify3D | Automation: Ladder, Grafcet, GEMMA | Docker

Sensor Technology | OpenCV and Computer Vision | Blender

Project Management, Strategic Management, and Innovation Management

Localization and Navigation Methodology (Kalman Filter, SLAM)

Design and Modeling of Robotic Systems | 3DExperience

ML, DL | Signal and Image Processing | Drone Modeling

Knowledge in ROS

VOLUNTEERING

- Head of Robotics Workshops, Treasurer, and Trainer at DIGICLUB.
- Head of External Relations at CYBERCLUB.

EDUCATION

State Engineer in Robotics and Cobotics | Sep 2021 - Jun 2024
Euro-Mediterranean University of Fez, EIDIA

Integrated Preparatory Cycle | Sep 2019 - Jun 2021
Euro-Mediterranean University of Fez, EIDIA

Baccalaureate in Physical Sciences | Jun 2019
Mohammed EL Rafrai High School, EL JADIDA

ACADEMIC PROJECTS

- Safe Box using LabVIEW MyRIO.
- PepperChat: Integration of ChatGPT for intelligent conversations with the 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.
- COVID-19 detection using support vectors, KNN, and perceptron.
- Differential drive control using a fuzzy logic controller.
- Design and simulation in VHDL of an electronic lock.
- Real-time object detection with MATLAB.

CERTIFICATES

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

LANGUAGES

Arabic | French | English | Spanish