

Imane MOUMOUN

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Engineering student passionate about embedded systems and artificial intelligence, seeking a 4- to 5-month internship starting in April 2026 to apply my technical skills and contribute to innovative projects.

Education

Mines Saint-Étienne

Gardanne, France

Master's Degree in Microelectronics & Computer Science

Since September 2024

Preparatory Classes for the French "Grandes Écoles" at Lycée Méditerranéen d'Excellence

Martil, Maroc

Mathematics, Physics & Computer Science (MPSI/MP)

2022 – 2024

Projects

Programming a line-following robot with STM32 microcontroller

April 2025 – June 2025

Developed a line-following algorithm with real-time decision-making using IR sensors, implemented PID control of motors for stable trajectory, and configured UART/Bluetooth interfaces for travel time reception.

Designed a liquid level measurement system using a capacitive sensor

April 2025 – June 2025

Designed a signal conditioning circuit converting capacitance into a frequency readable by an STM32, with integrated Bluetooth interface for calibration, liquid level monitoring, and critical level alerts.

Developed a client-server application tailored for social networking functionality

April 2025 – May 2025

Developed a multithreaded client-server application in C with simultaneous connection handling via sockets, real-time messaging (private and public), and an interactive voting system.

SystemVerilog Modeling of the ASCON Encryption Algorithm

April 2025 – May 2025

Implemented the ASCON-128 encryption algorithm in SystemVerilog to secure user communications by encrypting messages.

Development of an AI Model (TIPE-CPGE)

2022 – 2024

Detection and tracking of a tennis ball using deep learning through fine-tuning YOLOv5 and TrackNet models.

Professional Experience

IA Intern at PELLEC - Pertuis, France

January 2025 – February 2025

Collected and annotated a specialized dataset for olive tree trunk detection, fine-tuned the YOLOv8 model, and optimized hyperparameters to enhance model performance.

Extracurricular Experience

Head of IT service at Forum Entreprise ISMIN (FEI) Association

Since February 2025

Project Manager at Solidar'ISMIN Association

Since January 2025

Secretary General of the International Students' Office (BDI)

Since January 2025

Two-time Best Speaker Award Winner at « Public Speaking Contest »

2019 – 2020

Technical Skills

C | C++ | Python | PyTorch | Linux | Roboflow | SystemVerilog | STM32CubeIDE | KiCad | Git | Docker | Modelsim | PartQuest | PostgreSQL

Languages

English : C1 - Advanced

French : Advanced

German : A1 - Beginner

Arabic : Bilingual