Maram Cheikh

Final-year Engineering Student

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- 🔗 LinkedIn
- 🌐 Portfolio
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Profil

Third-year engineering student at INSAT, specializing in Instrumentation and Industrial Maintenance, with a focus on Microelectronics (in partnership with Grenoble Alpes University). Passionate about embedded systems, IoT, and microelectronics, with strong motivation to contribute to innovative projects combining research and technological development.

Éducation

Instrumentation and Industrial Maintenance 2021-2026
National Institute of Applied Sciences and Technology

Scientific Baccalaureate 2017-2021
Mohamed Ali Annebi High school - with Honors

Experience

SOFIATECH - Internship July-August 2025
Tunis, Tunisia

- Development of a Raspberry Pi–based Border Router using an nRF dongle, integrating Matter and Thread, developed under Linux, to facilitate communication between connected devices within a network.
- Configuration of Home Assistant and integration of the Border Router, including commissioning of a Matter device (ESP32-H2 running the Light example) to experiment with management of connected devices.

Microelectronics Internship July 2025
Grenoble, France

- Visit to ST-Crolles, CEA-Leti, LTM, and Labex Microelectronics
- Practical work in the Cleanroom of CIME-NANOTECH
- Design and routing of circuits using CADENCE

SOFIATECH - Summer Internship July 2024
Tunis, Tunisia

- Development of an IoT solution for automating a garage door using the MATTER protocol on Ubuntu.
- Integration of smart home features enabling remote control and GPS-based operation.

ELEONETECH - Voluntary Internship July 2023
Bizerte, Tunisia

- Development of tests using LabVIEW
- Observation of the daily tasks and responsibilities of maintenance professionals.

Projects

- Line follower Robots(×2)
- Autonomous Robot - Robotics competition
- Personal and professional project: study and development of smart glasses for visually impaired individuals, using computer vision.
- Wellness Innovation Bootcamp – 2nd Prize: optimizing the mobility of wheelchair users through innovative solutions via a platform.
- Smart Irrigation System: Automated irrigation management project using humidity sensors and an ESP32 microcontroller.

Technical and Soft Skills

- **Programming and Software Development:** Python(YOLOv8, OpenCV, TensorFlow, Scikit-learn, Pandas), embedded C / C++, React.js, VHDL, SQL, GitHub, OpenThread
- **Tools and platforms:** LabVIEW, MATLAB, SolidWorks, Linux, Firebase
- **Embedded systems and Electronics:** STM32, ESP32, Raspberry Pi, nRF52840 Dongle, Microelectronics, Robotics, CAN, UART
- **Personal :** Teamwork, Stress Management, Motivation, Hardworking

Certificates

- Large Language Model – NVIDIA
- ROS for Beginners – Udemy
- Certified SolidWorks Associate (CSWA)
- GitHub Foundations – DataCamp
- Communication protocols – CSF
- AI Fundamentals – DataCamp

community life

- IEEE Robotics and Automation Society
- INSAT Maintenance Club
- INSAT ACM Student Chapter
- Tunisian Scout

Languages

- Arabic (Native)
- English (Fluent – ONSET B2)
- French (Fluent – TCF C1)
- German (Basic)

Interests

Scout • Swimming • Reading