



# HOUSSEM SLIMI

Embedded/Testing software engineer

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[Portfolio: slimihoussem.github.io](https://Portfolio: slimihoussem.github.io)

Tunis, Tunisia

## PROFILE

“Embedded Software Engineer in HMI and QA Automation, creating intuitive interfaces and delivering high-quality, tested embedded systems.”

## WORK EXPERIENCE

### Marabout Technology : Qt / C++ embedded software engineer

Nov 2022 – May 2025

- Develop and maintain embedded Qt/C++ applications for automated textile machines, improving production efficiency and reliability.
- Design batch, production, and room management applications supporting multi-operator workflows on Linux and Android platforms.
- Build import/export and inventory management applications tailored to textile factory processes.
- Create intuitive HMI interfaces using Qt Widgets and QML with a strong focus on usability and performance.
- Integrate JSON-based REST APIs and implement communication with PLCs via UDP/IP using Qt sockets.
- Perform functional, integration, and regression testing of applications; identify, analyze, and fix software defects.
- Manage embedded Linux environments, including OS configuration, scripting, and cross-compilation of Qt for ARM processors.

Technical environment : Linux (Debian-Ubuntu), Android , Qt/C++, QML , REST APIs , ARM , PLC.

### Mission abroad (Germany, Morocco, Romania)

- Participate in international on-site missions (Germany, Morocco, Romania) involving DMC electrical cabinet assembly, equipment installation, system commissioning, operational verification, and post-installation testing, ensuring compliance with quality and precision standards.

### IoT Innovation : End of studies project

Feb 2022 – Jun 2022

- Design and implement an end-to-end IoT communication system based on LoRaWAN architecture.
- Develop energy-efficient, long-range wireless communication optimized for low-power IoT applications.
- Design and develop a LoRaWAN hardware end-device, including component selection, integration, and validation.

Technical environment : IoT - LoRaWAN - MQTT - Altium designer - raspberry Pi4.

## EDUCATION

### Microelectronics Engineering

Sept. 2019 – July 2022

Higher Institute of Computer Science and Mathematics of Monastir.

### Bachelor's degree in Electronics, Electrotechnical and Automatic

Sept. 2016 – May 2019

Faculty of Sciences of Tunis.

### Technical Baccalaureate

Sept. 2015 – May 2015

Regeub High School.

## SKILLS

**QA and test automation:** XRAY, CSS Selectors, XPath, HTML, CSS, JavaScript, Selenium, Playwright, Robot Framework.

**Languages:** C/C++, Python, embedded C, QML, VHDL.

**Software:** Qt creator(Qt Widget, QML), Visual studio, Matlab, JIRA, Altium designer, Postman, Git-GitHub.

**Embedded platforms:** STM32407, ESP32, Raspberry Pi, FPGA, Radxa zero 3w.

**Communication protocols:** UART, SPI, I2C, RS232, TCP/IP, MQTT, Socket, LoRa-LoRaWAN.

**Operating system:** Windows, Linux, Android.

**DevOps:** Jenkins, GitHub Actions, Docker, Grafana-Prometheus.

**Personal:** Self-awareness, Collaboration, Problem Solving.

## CERTIFICATES

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<b>Certificate of Competence in Software Testing and Validation</b>	25/26
CSF Higher Training Center (CSF-CORP) "+270h".	
<b>C++20 Masterclass: From Fundamentals to Advanced</b>	25/26
Udemy (in progress) "114h".	
<b>LoRa and LoRaWAN for the Internet of Things</b>	2022
Udemy.	
<b>Introduction to the Internet of Things and Embedded Systems</b>	2021
Coursera.	
<b>IoT Wireless and Cloud Computing Emerging Technologies</b>	2021
Coursera.	

## ACTIVITIES

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- Advisor to the President at MTC ISIMM:** supporting organizational and strategic initiatives
- Project associate with CSID:** participating in an agriculture development project
- Active Member of the IEEE FST Student Branch:** contributing to technical and community initiatives

## LANGUAGE

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- Arabic:** Native language
- French:** Professional
- English:** Professional