



HOUSSEM SLIMI

Embedded/Testing software engineer

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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

Higher Institute of Computer Science and Mathematics of Monastir.

Sept. 2019 – July 2022

Bachelor's degree in Electronics, Electrotechnical and Automatic

Faculty of Sciences of Tunis.

Sept. 2016 – May 2019

Technical Baccalaureate

Regeub High School.

Sept. 2015 – May 2015

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

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

ACTIVITIES

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

Arabic: Native language
French: Professional
English: Professional