

ALADDIN JAMLI

EMBEDDED SOFTWARE ENGINEER STUDENT

+216 98 464 811

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Tunis, Tunisia

PROFILE SUMMARY

Passionate student with a curious mindset and strong drive to learn. Skilled in designing, testing, and refining reliable, user-friendly applications. Thrives in team environments, solving complex problems, and delivering innovative solutions. Excited by new challenges and contributing to impactful projects.

EDUCATION

Private higher school of engineering and technology | Tunisia

2023 - PRESENT

Engineer's Degree - Embedded, Ambient & Mobile Software Systems

Higher Institute of Information and Communication Technologies - ISTIC | Tunisia

SEPTEMBER 2020 - JUNE 2023

National Diploma - Electronics, Electrotechnology, and Machinery

WORK EXPERIENCE

Bionic Soul Startup | Internship

JUNE 2025 - SEPTEMBER 2025

Mobile Application Development

- Continued development of the mobile application started in the **academic project**.
- Added **new functionalities**, **customization options**, and **optimized** existing code.
- Integrated** the leg module with the arm module for a **complete** prosthetic management solution.

Bionic Soul Startup | Academic Project

JANUARY 2025 - JUNE 2025

AI-Controlled Bionic Leg

- Designed a bionic leg system to **collect** and **analyze** motion data using **ESP32** and **Raspberry Pi 4**.
- Developed **AI models** to control leg movements.
- Created a **Flutter** mobile app for real-time monitoring and a **full-stack Angular/Spring Boot** web application for a startup marketplace.

COFITEL | End of Studies Project

FEBRUARY 2023 - MAY 2023

Microcontroller-based Cable Testing System

- Developed a cable testing system using **PIC16F877A** and **PIC32MZ2048ECH-144** for 4-50 wire cables.
- Displayed results on a web page (**HTML/CSS/PHP**) and a built-in **LCD** screen.
- Designed** and **fabricated** a **custom power supply board** for reliable operation.

CERTIFICATES

- CCNA: Switching, Routing, and Wireless Essentials
- Embedded Linux Userspace
- C language for embedded systems
- POSIX Programming
- Embedded Linux KernelSpace and IoT
- Architecture and programming of STM32 Microcontrollers
- Object-oriented programming (C++) and QT based HMI for embedded systems
- Applications of AI for Predictive Maintenance
- Generative AI with Diffusion Models
- Attendance Hashgraph Developer
- Applications of AI for Anomaly Detection
- AWS Academy Graduate - Cloud Foundations

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PROJECTS

Smart Worker Safety Vest - Wearable IoT System

OCTOBER 2025 - NOVEMBER 2025

- Designed a smart wearable safety vest for real-time worker monitoring and accident detection.
- Implemented fall detection, SOS alerts, vital signs monitoring, and GPS tracking using an ESP32 and multiple sensors.
- Developed a Flutter mobile application connected to Firebase for live monitoring and push notifications.
- Technologies:** ESP32, MPU6050, MAX30102, BME280, GPS, Firebase, Flutter
- Skills:** Embedded C/C++, IoT Systems, Wearable Technologies, Sensor Integration, Cloud & Mobile Development

Remote Control Robot - DropBot

MARCH 2025

- Designed and assembled a Delivery Robot controlled remotely using a custom made controller via 3G protocol. Developed a mobile app to control the Robot remotely and adaptable to FPV (First Person View).
- Technologies:** ESP32s, Servo motors, 2x MPU6050, L298N, base robot motors and wheels.

CupCarbon Project - Retail Management System

NOVEMBER 2024 - DECEMBER 2024

- Designed a system for client count, temperature control, and stock monitoring.
- Connected main base station output to ESP32 using MQTT protocol.
- Technologies:** CupCarbon5, CupCarbon6.
- Skills:** C programming, Python, MQTT communication.

STM32 & ESP8266 IoT Data Transmission Project

AUGUST 2024

- Built an embedded IoT system using STM32F407 and ESP8266 to send sensor data to ThingSpeak Cloud.
- Configured ADC, UART (with DMA), and GPIO for sensor reading, communication, and debugging.
- Implemented AT command-based Wi-Fi communication for periodic cloud data uploads.
- Technologies:** C, STM32CubeIDE, HAL Library, UART, DMA, ADC, ESP8266, ThingSpeak
- Skills:** Embedded Systems, IoT Development, Microcontroller Programming, Cloud Integration

HARD SKILLS

- Embedded & IoT Systems:** PIC16F877A, PIC32MZ2048ECH-144, ESP32, STM32, Arduino, Raspberry Pi, BLE, MQTT, I2C, SPI, UART, ESP-NOW, Proteus.
- Programming & Development:** C, C++, C#, Python, Java, Web development (Angular, Spring Boot), Linux, Dart, PHP, JavaFX.
- Tools & Technologies:** STM32CubeIDE, Arduino IDE, Visual Studio Code, IntelliJ IDEA, Android Studio, Git/GitHub, Firebase, SQL, Oracle, MySQL.
- AI & Data:** Machine Learning (Python), Data Analysis, Cloud Integration (ThingSpeak, Firebase), IoT Data Visualization.

SOFT SKILLS

- Competitive mindset with a drive to excel and stand out.
- Strong sense of responsibility and ownership.
- Effective communicator in collaborative and technical settings.
- Fast learner, adapts quickly to new challenges.
- Proactive, goal-oriented, and results-driven.