

# Med Taieb ZORGATI

Tunisia, Sousse

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## Personal Profile

Dynamic and detail-oriented Embedded Systems and Electronics Engineer seeking to lead innovative projects that ensure reliable and fully integrated solutions. Committed to collaboration and creativity, with a drive to leverage cutting-edge technologies to address complex technical challenges and deliver impactful results.

## Skills

### Programming

C, C++, Python, VHDL, PLC Programming

### Professional Softwares

Matlab, Labview, TIA Portal, Latex, CubelIDE, Eclipse, Node-Red, Kicad

### Soft Skills

Teamwork, Effective Communication

## Experience

### Indoor Air Quality Monitoring System

Hydatis

Intern

February 2024- June 2024

- Safeguarded health and productivity with our innovative air quality solution.
- Engineered a system to capture and transmit real-time sensor data from an STM32L475 microcontroller to a remote server via Wi-Fi.
- Engineered a robust data transmission pipeline using Kafka, that reduced latency and improved overall system responsiveness for our critical application.
- Integrated a machine learning model to analyze and forecast air quality.
- Developed a web dashboard using Next.js for data visualization and system monitoring.
- **Technical Skills:** Python, Embedded C, Wireless Communication (Wi-Fi), RTOS, STM32, Communication Protocols, Sensor Integration, Kafka, Web Development
- **Soft Skills:** Analytical Problem Solving, Team Collaboration, Logical Thinking, Troubleshooting

### Low-Cost Vehicle Telemetry System

Dräxlmaier

Intern

August 2023

- Developed a real-time vehicle tracking system monitoring speed, acceleration, and temperature.
- Implemented a telemetry system to collect realtime vehicle data and transmit it to a mobile device.
- Implemented a long-range point-to-point architecture using LoRa modules, then implemented wireless cloud transmission.
- **Technical Skills:** C++, Wireless Communication protocol (LoRa), Firebase, ESP32, Arduino UNO
- **Soft Skills:** Team Collaboration, Effective Communication

### Application Taghita

Tunisie Télécom

Intern

July 2022 - August 2022

- Collected and organized data on telecom pole positions to improve the accuracy and efficiency of the Taghita application within the ArcGIS workforce.
- Gained knowledge about network architecture and telecommunication cables.
- **Technical Skills:** Diagnose and resolve breakdowns
- **Soft Skills:** Teamwork

## Education

### National Engineering School of Sfax (ENIS)

Sfax, Tunisia

Engineering degree in Electrical Engineering

2021 - 2024

### Preparatory Institute for Engineering Studies of Kairouan (IPEIK)

Kairouan, Tunisia

Pre-engineering Diploma

2019 - 2021

## University Projects

### Automatic Watering

Sfax, Tunisia

National school of engineers of sfax

September 2023 - January 2024

- implemented an intelligent irrigation system capable of real-time monitoring and control.
- Utilized sensors data and control algorithm to optimize water distribution and minimize waste.
- Implemented wireless communication and cloud-based solutions for remote access and data analysis.
- **Technical Skills:** IOT, STM32, Embedded C, Cloud Platform, Sensor Technology, Esp8266
- **Soft Skills:** Team Collaboration, Troubleshooting

### Twilight Switch

Sfax, Tunisia

National School of engineers of Sfax

November 2023 - January 2024

- Engineered an energy-efficient lighting control solution that automatically adjusts lighting levels based on ambient light conditions, maximizing energy savings.
- Tested the hardware prototype in real-world conditions.
- Designed a custom PCB tailored to the specific requirements of the system, optimizing component layout and signal routing.
- **Technical Skills:** Kicad, PCB design, Hardware testing
- **Soft Skills:** Time Management, Problem-solving

## Languages

English

French