Electrical Engineer

WIEM TABBAL

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https://wiemtabbal1.github.io/WiemTheEngineer.github.io/

Kebili, TUNISIA

Skills

- Programming: Python, C/C++, JavaScript, HTML/CSS
- Frameworks/Tools: Angular, Spring Boot, Power BI, MATLAB/Simulink, TIA Portal, VHDL, LabVIEW
- Hardware & Design: Raspberry Pi, STM32, ESP32, Proteus, AutoCAD, Linux/Windows environments

Languages

- French – Proficient
- English – Intermediate
- Arabic – Native

Work Experience and Internship

ELECTRICAL ENGINEER – Construction Contracting Office – Kebili, Tunisia July 2024 – June 2025

- Conducted electrical design studies in accordance with relevant standards and project specifications.
- Supervised site installations to ensure quality and safety compliance.
- Prepared detailed electrical schematics using **AutoCAD**.

END-OF-STUDIES PROJECT INTERNSHIP – DRÄXLMAIER SATE – Mahdia, Tunisia February 2023 – June 2023

- Developed a full-stack web application to report and track defects on the production line, improving communication between operators and supervisors.
- Used **Angular** for the front end and **Spring Boot** for the back end to ensure responsive and scalable performance.
- Integrated **MySQL** for data storage and used **Power BI** for real-time data visualization and analytics.
- Employed **Postman** for API testing and followed the **Scrum** methodology for agile development.

INTERN – Consulting Engineer's Office for Electricity and Fire Safety – Kebili, Tunisia July 2022 – August 2022

- Created single-line electrical schematics using **AutoCAD**.
- Developed code for cable section calculations using **MATLAB**.

INTERN – Tunisian Company of Electricity and Gas (STEG) – Kebili, Tunisia July 2021 – August 2021

- Learned about electricity production and distribution systems.

Projects

DRIVER DROWSINESS DETECTION SYSTEM 2023

- Designed and implemented a real-time driver drowsiness detection system using **Python** and **OpenCV** on a **Raspberry Pi 4**.
- Integrated deep learning models with **Keras** to detect signs of fatigue from live video input.

RASPBERRY PI BOARD CONTROL 2023

- Programmed and tested the Pi Sense HAT extension board and controlled the Raspberry Pi camera module using **Python**.
- Gained hands-on experience with IoT protocols by implementing **MQTT** and integrating **ThingSpeak** for real-time data monitoring and visualization.

SMART CONNECTED LOCK 2022

- Designed a smartphone-controlled connected lock using **ESP32** and **C++ language**.

Education

ENGINEERING DEGREE IN ELECTRICAL ENGINEERING – National Engineering School of Sfax (ENIS), Tunisia 2020 - 2023