ALI FAWAZ

CONTACT

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EDUCATION

2023 - 2025
ENSEEIHT

- Master of Electronic System for Embedded and Communicating Applications

2016 - 2020
LEBANESE UNIVERSITY

- Bachelor of Science in Electronics

SKILLS

- VHDL, C/C++, Python, MATLAB
- Vivado, HFSS , Arduino, ADS
- Goal-oriented, Proactive, Responsible and Ambitious
- Being patient and approachable is a skill I gained through tutoring students

LANGUAGES

- Arabic (Fluent)
- English (Fluent)
- French (Basic)

PROFILE

I'm passionate about how the fusion of hardware and software can create meaningful change. After working in software for several years, I'm reconnecting with my love for electronics, where I see endless potential to build solutions that make a real difference. I'm excited by how technology, especially in embedded systems, can drive innovation and improve lives worldwide.

EXPERIENCE

LAAS-CNRS
Research Intern
Jun 2024 - Sep 2024

- Worked on a microplastic detection system using Optical Feedback Interferometry (OFI) and the Phantom C321 high-speed camera, automating particle detection through Python scripting.
- Conducted real-time data acquisition and frequency analysis (FFT) to identify micro-particles in water, contributing to environmental monitoring and microplastic pollution reduction.

Wave
Software Developer
Aug 2022 - Oct 2023

- Led frontend development for web and mobile platforms, collaborating closely with backend teams.
- Developed a bike tracking system, integrating it with real-time inventory management, and enhanced the platform's user experience.

PROJECTS

FPGA-Based Frequency Counter

- Designed an automated frequency meter (1Hz to 10MHz) with unit conversion (Hz, kHz, MHz).
- Achieved accurate 4-digit readings, refreshing every 2 seconds for real-time monitoring.

FPGA-Based 1-Wire Digital Thermometer

- Implemented a 1-Wire Protocol on an FPGA using DS18S20 sensors to measure temperatures (-55°C to 85°C) with a resolution of 0.5°C.
- Fully synchronous design using state machines, with temperature displayed on a 7-segment display.

Smart Shoes for the Visually Impaired

- Developed an assistive device to help visually impaired individuals navigate using sensors integrated into shoes based on Arduino using C/C++.

REFERENCES

Adam Quotb
Head of the master ESECA
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Genevieve Casey
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