

# Farouk Jawhari PhD Student in Electronics

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Electronic Engineer specializing in Radio and Telecommunications Systems, currently developing and optimizing a wireless communication system based on magnetic induction for petroleum drilling applications. Seeking telecommunications design circuit and signal processing roles upon PhD completion in March 2026.

## Core Skills

Radio Frequency Engineering,
Telecommunications Engineering, Electrical
Engineering, Application-Specific Integrated
Circuits
(ASIC),

Analog Circuit Design, Printed Circuit Board (PCB) Design, Programming Languages, Integrated Circuit Design, Analog Integrated Circuit Design, Radio Frequency (RF) Engineering, RF Design, Modulization & Simulation, CST, ADS, Cadence, Matlab, VHDL, KiCad EDA, Proteus, PSIM, Python, C, C++, SQL, Arduino IDE + (LoRa)

#### Education

University of Bordeaux & SLB Aug 2023 - Present PhD Student Electronics

### University of Bordeaux

Sep 2021 - Jun 2022 Master's Degree Complex Systems Engineering

### **ENSEIRB-MATMECA**

Sep 2019 - Jun 2022 Electronic Engineering Degree Specialization in Radio and Telecommunication Systems

Association for the Promotion of Excellence in Education

Sep 2017 - Jun 2019 Preparatory Classes Engineering Studies - TSI

### Interests

Cultural gatherings, Museum visits and Making music

## Work Experience

Electrical Engineer

SLB (ex : Schlumberger) | Clamart, Île-de-France,
France

Oct 2022 - Mar
2023

#### ASIC Characterization & Tests:

- Conducted detailed ASIC characterization on speed, power, and thermal metrics.
- Collaborated with teams to align design and testing.
- Documented processes, results, and findings in comprehensive technical reports for stakeholders.

## End-of-studies internship

Feb 2022 - Jul 2022

Schlumberger | Clamart, Île-de-France, France

Design of an Analog-to-Digital Converter (ADC):

- Developed a CMOS 0.18 $\mu$ m ADC for high-temperature applications (>200°C).
- Optimized performance via switch analysis, enhanced signal integrity, reduced power consumption, validated designs through simulations, and documented methodologies and findings in detailed technical reports.

## Academic Projects

Sep 2019 - Dec 2021

ENSEIRB-MATMECA | Bordeaux, France

Designed RF components with ADS, optimized beamforming, contributed to nanosatellite RF design, developed IoT-based antijamming solutions, fabricated MOS transistors, created audio amplifiers, linearized photoresistors, and designed a wireless power transmission system for efficient energy transfer.

## Volunteer Experience

President Sep 2020 - Jun 2021

Foreign Students' Welcome Club (CLUBEE)

Communication Manager Sep 2020 - Jun 2021

**ENSEIRB** Gaming House

## Languages

French (Bilingual Proficiency)
English (Full Professional Proficiency)
Arabic (Native)