# AYOUB BOUROUHOU

Electrical and Electronic Engineering for Embedded Systems

## PROFILE

Electrical Engineering and Embedded Systems student, dynamic and with excellent teamwork skills. Passionate about technological innovation, I am seeking a final-year internship to apply my skills in practice.

## SKILLS

### Computer Programming
Python, JAVA, C, C++, VHDL, Verilog Shell Scripting, Git, Assembly, MATLAB Simulink, Linux.

### Conception et Simulation
Proteus, PSpice, Microwind, LabView, CATIA, AUTOCAD, Step7, Quartus 2, Tia Portal, Pvsys, Qsys, CANalyser, Power BI.

### Full stack dev
HTML   CSS   PHP   JAVA script
Flutter

### Communication Protocols.
CAN, LIN, I2C, Zigbee, NFC.

### Other
Power Electronics, Electrical Engineering.
Raspberry Pi, ESP 32, STM32
Adobe, B2B, B2C, Financial Management.

## CERTIFICATION
- Standards and Protocols: ISO 26262, ISO/SAE 21434.
- Carbon Footprint Essentials : How to Conduct a $CO_2$ Inventory (UDEMY)
- Microsoft Power BI Desktop for Business Intelligence (UDEMY)
- Semiconductor Physics (University of Colorado Boulder).
- State Estimation and Localization for Self-Driving Cars (University of Toronto).
- Introduction to Self-Driving Cars (University of Toronto).
- FPGA Design for Embedded Systems.

## PARASCOLAIRE
- Technical and Communication Manager for Cub OPEN MIND ENSAKH.
- Technician and Developer for the annual ElectroDays event.
- Sponsorship Manager for Cromek 7.0.

## INFORMATION
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- Ayoubbourouhou

23 years old        Driving License B

## PROFESSIONAL EXPERIENCE

### End-of-Year Internship at UTAC
**Testing and Validation of Braking - ADAS**

July – September | 2024

- ADAS testing.
- Vehicle instrumentation for testing – braking – ADAS – durability.
- Analysis of test results using CANalyzer.
- Braking system analysis.
- Use of DeweSoft for brake sensor analysis.
- Driver distraction and fatigue tests according to the Euro NCAP standard.
- Analysis of electrical and electronic faults.
- Vehicle reception sheet.
- Project management in V-cycle.
- Preparation and drilling of pedals and plates for brake testing.
- Writing test reports for clients.

### Internship at Green Energy Park

June – August | 2023

- Development of a tester for electric vehicle charging stations.
- Communication of the electric vehicle charging module using the CAN communication protocol.
- Control system using GSM-SMS technology.
- Charging station architecture.
- Programming with STM32.
- Testing and validation of solar panels.
- Development of a mobile application to find electric vehicle charging stations using FLUTTER.

## PROJECTS
- Tachometer speed sensor with NE555.
- Simulation of a PID control system using Simulink.
- Design and simulation of a PWM-mode inverter for induction motor control.
- Creation of a website for an annual department event.
- Quartz clock with seconds display using 60 LEDs and PIC 16F84A.
- Creation of an autonomous model simulating a city for the ElectroDays competition.
- Project on basic predefined functions in C on a machine within 1337.
- Development of a Custom Processor on FPGA.

## EDUCATION

### Engineering Degree
2022 – Present
**Electrical Engineering and Embedded Systems**
National School of Applied Sciences of Khouribga

### Integrated Preparatory Class
2020 – 2022
National School of Applied Sciences of Khouribga

### Baccalaureate
2018 – 2019
Technical Qualification High School
Physical Sciences

Mention: Very Good

## LANGUES

French: Fluent        English: Fluent        Arabic: Native