







# ALEXANDRE BOURDOIS

EMBEDDED SOFTWARE  
DEVELOPMENT ENGINEER

## CONTACT

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-  Rennes, France

## SKILLS

- Problem-solving
- Collaboration
- Critical Thinking
- Adaptability
- Open-mindedness

## LANGUAGE

- English
- French

## ABOUT ME

Dynamic Hardware and Software engineer with a solid foundation in both domains. Excited to leverage technical skills and adaptability. Experienced in collaborative problem-solving, rapid learning, and innovative solution development.

## WORK EXPERIENCE

### Application software engineer 2023 – 2024

**STMICROELECTRONICS** – Rennes in FRANCE

- Programming of microcontrollers (STM32)
- Development of testing tools in Python
- Application of NB-IoT and GNSS
- Communication protocols (SPI, UART, I<sup>2</sup>C, MQTT, etc.)
- Use of TLS to secure HTTP exchanges

### Electronic engineer 2023

**UTM** – Johor Bahru in Malaysia – Intern

- Complete design of a digital probe from CAD to assembly
- Assistance with PCB manufacturing (CNC, electroplating, etc.)
- Architecture description in Verilog

### IoT Cybersecurity Consultant 2021-2023

**LOOTUS** – Saint-Grégoire in FRANCE

- Programming of microcontrollers (STM32)
- Design of a USB update Bootloader by DFU protocol
- FPGA SOC creation in Python using LITEX
- Electronic board design (CAD)
- Linux embedded developments
- Reverse engineering of optical systems (decoding and implementation of proprietary video encoding protocol)

## EDUCATION

### INSA RENNES 2021 – 2024

Master of Engineering

### University of RENNES 2019 – 2021

Bachelor of Engineering

## PROGRAMMING & WEB LANGUAGES



HTML



CSS



JS

