

# HÉNOC MUKUMBI

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Graduating student in 2026 from Université de Technologie de Compiègne.

## EXPERIENCE

### LGM Ingénierie

*Apprenticeship - Full-Stack Web Developer*

January 2025 - Present

*Vélizy-Villacoublay, France*

- Designed and developed a web application to generate validation reports for automotive Electronic Control Units (ECUs), replacing a previous third-party solution. The application was built using Python (Django), HTML, CSS (Bootstrap), JavaScript, and HTMX.
- Collaborated with the software development team, working closely with the validation service lead to define weekly objectives and align with project specifications.

### LGM Ingénierie

*Apprenticeship - Automotive Validation Engineer*

August 2024 - January 2025

*Vélizy-Villacoublay, France*

- Conducted validation testing on automotive ECUs, focusing on lifecycle phases and physical layers based on Stellantis requirements.
- Developed expertise in CAN and LIN protocols, analyzing their applications in vehicle communication networks.
- Utilized tools such as CANoe, oscilloscopes, multimeters, and CAN disturbance modules to assess ECU performance and compliance.
- Improved test planning and execution efficiency, optimizing workflow to meet project deadlines.

### LGM Ingénierie

*Apprenticeship - Software Test Engineer*

August 2023 - July 2024

*Vélizy-Villacoublay, France*

- Performed unit testing on OCEAN software modules, a communication framework ensuring reliable data exchange between automotive ECUs.
- Conducted on-target unit tests to validate software functionality in real-world conditions.
- Reviewed code compliance with LGM Ingénierie standards ensuring quality and robustness.

### CNRS - Université Paris Cité

*Internship - Embedded Electronics and Systems Technician*

April 2023 - June 2023

*Paris, France*

- Designed and debugged PCBs using Ultiboard integrating temperature sensors for clean room monitoring.
- Implemented a Si4432 RF for wireless data transmission.
- Migrated firmware from ATmega328P to PIC18F26J11 optimizing the temperature regulation system in C/C++.

## EDUCATION

### Université de Technologie de Compiègne (UTC) - Sorbonne

Master in Computer Science

Specializing in Embedded Computing and Autonomous Systems

*June 2026*

### Université Paris-Saclay IUT de Cachan

Associate's Degree in Electrical Engineering and Industrial Computing

Average : 15.0/20

*June 2023*

## TECHNICAL STRENGTHS

### Computer Languages

C, C++, Python, VHDL, JavaScript, HTML, CSS

### Embedded Systems

ARM Mbed, Arduino, Raspberry Pi, Microchip PIC

### Communication Protocols

SPI, I2C, Ethernet, CAN Bus, LIN Bus, RS232, UART

### PCB Design & CAD

KiCad, Ultiboard, Altium Designer, SolidWorks

### Web Technologies

Node.js, Express.js, Django, Flask

### Databases

PostgreSQL, SQLite

### Operating Systems

Windows, macOS, Ubuntu

### Workflow & Tools

Git, GitHub, GitLab