

ERICKA ASSENUE

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Embedded Systems and Computer Science student at École des Mines de Saint-Étienne (ISMIN), passionate about designing autonomous and intelligent solutions to real-world challenges. Seeking a Summer 2027 Embedded Systems Internship in the United States.

EDUCATION

École des Mines de Saint-Étienne

Gardanne, France

Engineering Degree in Microelectronics & Computer Science

Expected 2028

- **Relevant Coursework:** Embedded Systems (STM32), Signal Processing, Algorithms & Programming, Computer Architecture, Control Systems, Robotics Programming.

Institut Universitaire Saint-Jean

Yaounde, Cameroon

French Preparatory Classes for Grandes Écoles – Mathematics & Physics Track

2023 – 2025

EXPERIENCE

Microchip Technology

Rousset, France

Discovery Internship

Jan. 2025

- Developed interrupt-driven firmware in C++ on a PIC microcontroller for real-time temperature-based RGB LED control.
- Evaluated MCU/MPU architectures for an Edge AI voice-recognition system by comparing compute performance, memory footprint, power consumption and deployment constraints.

University's Student Enterprise – Junior Mines Provence

Gardanne, France

President

Apr. 2025 – Present

- Lead an 11-member executive board managing business development, marketing, finance and quality for a 200+ member engineering consulting organization.
- Coordinated engineering projects worth over €20,000, supervising multidisciplinary student teams and client relationships from proposal to delivery.

Saint-Jean Alumni Association

Yaounde, Cameroon

President

2025 – 2026

- Co-authored a published educational e-book and led a multi-platform outreach initiative reaching hundreds of thousands of cumulative views.
- Organized nationwide mock oral examinations preparing students for competitive engineering-school admissions.

PROJECTS

SmartBin (Ikounafy) – Smart Waste Monitoring System

2025

- Designed a smart waste monitoring prototype combining an STM32 microcontroller, a custom KiCad PCB and capacitive sensing, achieving approximately 95% fill-level detection accuracy.
- Validated the sensing principle through COMSOL electrostatic simulations before hardware fabrication.

Pilleasy – Connected Medication Adherence System

2025

- Developed the Flutter mobile application featuring OCR prescription scanning and dedicated interfaces for patients, caregivers, physicians and pharmacists.

Differential-Drive Rover

2025

- Designed a Bluetooth-controlled STM32 robot implementing closed-loop PI motor speed control with quadrature encoder feedback.

SKILLS

- **Technical:** C, Python, Dart, SQL, SystemVerilog, STM32, PIC Microcontrollers, Flutter, Git, Linux, KiCad, COMSOL Multiphysics, Autodesk Inventor
- **Interpersonal:** Leadership, Entrepreneurship, Problem Solving, Teamwork, Communication
- **Languages:** French (Native), English (Professional), Chinese (Beginner)