Aymen GHERBI

Bachelor's student in Energy and Sustainable Development | Electronics, embedded systems and AI

Aymengherbi06@gmail.com • 07 59 54 40 53 • Lyon 69008 • Born 23 May 2006

PROFILE

First-year student at CNAM, I work on personal projects in intelligent automation, embedded electronics and bioelectrical interfaces. I lead technical decisions, architecture, testing and part of the development, with occasional AI assistance.

EDUCATION

Bachelor's in Energy and Sustainable Development - Year 1 09/2026 - present
Conservatoire national des arts et métiers (CNAM) - Grenoble

Technical coordinator: Jean-Luc Nominé - 06 11 75 38 24

STI2D Baccalaureate - Science and Technology of Industry and Sustainable Development 06/2024
Lycée La Martinière Monplaisir - Lyon

PERSONAL TECHNICAL PROJECTS

OSIA | Open-source agentic AI assistant - Desktop and mobile

• **Goal:** AI assistant for Windows, Linux, macOS, iOS and Android: multi-step computer tasks and verification of results.

• **Automation:** Computer Use (screenshot → action → verification), keyboard/mouse, Win32/UI Automation and Playwright/CDP navigation.

• **Features:** PC/mobile control (WebSockets), local memory, voice (Whisper/TTS), Gmail/OAuth, MCP, scheduled tasks and file/media analysis.

• **Engineering:** recovery after errors or disconnections, ActionTruth and system safeguards; architecture, diagnostics and testing.

Technologies: Python, Flutter/Dart, Qt, asyncio, WebSockets, REST, OAuth, Playwright, Git and Cloudflare.

OSYN | Embedded electronics and microcontroller platform

• **System:** Raspberry Pi 3 A+ running Linux: 1024 × 600 touchscreen, automatic startup, networking, files and USB/udev peripherals.

• **Firmware:** Pico Controller v1.0.0 on Pico 2 W (RP2350): JSONL protocol over USB serial, diagnostics and MicroPython maintenance; tested on hardware.

• **Electronics:** SPI/GPIO/USB architecture; radio (CC1101, E07), RFID/NFC and IR modules under consideration. Python Runner undergoing validation.

Technologies: Python, embedded Linux, MicroPython, RP2350, USB CDC, SPI, GPIO, NetworkManager, BlueZ.

FullDiver / NeuroSeat | Early-stage R&D in biomedical electronics

• **Concept:** instrumented chair to control an avatar through EEG/EMG with synchronised sensory feedback. **Stage: concept design; no prototype built.**

• **Acquisition under study:** EEG (16-32 channels), EMG (4 channels), IMU and pressure; low-noise amplification, analogue-to-digital conversion and timestamping.

• **Electrical safety:** galvanic isolation, circuit separation, suitable power supply and independent monitoring to be validated before testing.

WORK EXPERIENCE

Sales adviser | Julian 07/2024 - 02/2026
Customer service and advice, payment processing, customer retention, sales negotiation and teamwork.

SKILLS, LANGUAGES AND INTERESTS

Technical: Python, Dart, C, C#, JavaScript, Java, Git, testing, Linux, digital electronics, SPI/USB/GPIO; Word, Excel, PowerPoint.

Languages: English B2, Malay B1, Arabic B2, Yiddish B1.

Interests: Electricity / electronics • Biology • Finance • Hiking.