

Lawrence Abou Karroum

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[Portfolio](#) | [LinkedIn](#) | [GitHub](#) | [YouTube](#)

SUMMARY

Software Engineer with experience in cross-platform development, embedded systems, and backend integration. Skilled in Flutter, Python (FastAPI/Django), and real-time IoT systems using ESP32 and BLE. Focused on building scalable applications using Clean Architecture and MVVM principles.

SKILLS

- **Programming:** Python, C, C++, C#, Dart
- **Software Development:** Flutter, FastAPI, Django, REST APIs, Firebase, MVVM, Clean Architecture, Riverpod/Provider
- **Artificial Intelligence:** Hands-on experience with core AI concepts and applications
- **Databases:** SQLite and MySQL basics
- **Tools:** Git, VS Code, PlatformIO, Arduino IDE
- **Trilingual:** Arabic (Native), English (Professional), French (Professional)

WORK EXPERIENCE

- **Mechatronics Engineer & Software Developer**

Pulsewave, Baabda | Sep 2025 – Jan 2026

- (1) Built a cross-platform Flutter mobile app integrated with embedded hardware for real-time monitoring and control
- (2) Developed ESP32-based embedded systems using FreeRTOS with BLE communication for real-time control applications and implemented full IoT system integrating firmware, mobile app, and sensor-based hardware

- **Robotics & Coding Tutor**

TutWithUs, UAE, Online | Feb 2026 – Present

- (1) Taught programming, algorithms, and embedded systems concepts for robotics and software development
- (2) Simplified complex technical concepts into applied learning based on real-world engineering use cases

- **Web & Game Developer Intern**

App Skilled, Bakaata | Jun 2023 – Aug 2023

- (1) Develop interactive 2D games in Unity (C#), applying problem-solving and code optimization skills to enhance gameplay mechanics and project efficiency
- (2) Develop responsive websites using HTML, CSS, and JavaScript with WordPress (Elementor), collaborating with SEO and design teams to create user-friendly interfaces

PROJECTS

- **Founder & Developer - Plutos: Money Management App**

Independent | Feb 2026 – April 2026

- Built a local-first personal finance app for tracking expenses and financial activity without cloud dependency
- Designed a clean, modular architecture ensuring scalability, maintainability, and separation of concerns
- Implemented data persistence, categorization, and analytics-ready structures, for a full development from design to testing with a focus on usability

EDUCATION

- **Bachelor of Technology in Mechatronics Engineering**

University of Balamand, Souk Al Gharb | Sep 2022 – July 2025

Cumulative **GPA: 3.41/4.0**

Extracurricular: Member in Research Club Participant, Web Development Club & Robotics Club