

HAMZA TOUMEH

Computer Engineer | Python Developer | Full-Stack & Systems Engineering

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PROFESSIONAL SUMMARY

Computer Engineering graduate with hands-on Python programming experience and a strong foundation in data structures, algorithms, and quantitative problem-solving developed through a rigorous engineering curriculum. Skilled in designing and delivering full-stack systems, RESTful APIs, and structured databases end-to-end. Comfortable working across multidisciplinary teams, learning new technical frameworks quickly, and translating technical work into clear written and verbal communication. Seeking to apply strong engineering fundamentals and a fast learning curve to an AI/ML engineering environment.

TECHNICAL SKILLS

- Programming Languages: Python, C, C++, Java, JavaScript, PHP
- Software Engineering: RESTful API design and architecture, relational database design (MySQL), version control (Git), object-oriented design patterns
- Quantitative Foundation: Data Structures & Algorithms, Computer Networks, Operating Systems, Digital Logic Design, Discrete Math (coursework)
- Systems & Cloud Readiness: Linux administration, TCP/IP, DNS, DHCP — foundation for cloud-native infrastructure (AWS exposure not yet production-level)
- Mobile & Embedded: Flutter/Dart, Android (Java), ESP32, LoRa, Arduino, circuit simulation (Proteus, LTSpice)
- Tools & Productivity: VS Code, XAMPP, Microsoft Word/Excel/PowerPoint (advanced)

WORK EXPERIENCE

IT & Systems Coordinator | SEDRA'S HOME | Interior Design, Custom Furniture & Fit-Out May 2025 – Feb 2026

Bchamoun, Hay Al-Zhour, Mount Lebanon

- Administered and maintained company-wide computer systems, printers, and network infrastructure, sustaining 100% operational uptime across daily business operations
- Digitized and standardized client quotations, invoices, and order records using Excel and Word, cutting manual processing time and improving data accuracy across all active accounts
- Built and maintained a structured digital database tracking active client projects, order status, material requirements, and delivery timelines for the full project pipeline
- Organized project documentation — design specifications, material lists, and supplier correspondence — into a structured digital filing system, improving retrieval speed for the team
- Managed client-facing communication channels (email, WhatsApp Business), ensuring consistent, timely follow-up across all active client accounts
- Identified and proposed digital workflow tools that improved internal order-tracking efficiency across the team
- Delivered hands-on technical support for hardware and software issues, minimizing downtime during daily operations

PROJECTS

TrailLink — Offline Mesh Communication System — Flutter · PHP · MySQL · ESP32 · LoRa (Senior Capstone, 2025–2026)

- Architected and delivered a full-stack offline communication platform (Flutter frontend, PHP/MySQL backend) supporting group messaging and SOS emergency alerts with zero internet dependency
- Designed and implemented a RESTful API covering authentication, role-based access control, group management, and real-time alert routing for multiple concurrent users
- Integrated ESP32 microcontrollers with LoRa radio modules to build a long-range (2–5 km) mesh network, removing dependency on cellular infrastructure in remote areas

- Built a CMS-style admin dashboard with full CRUD functionality for user, group, and role management
- Authored complete technical documentation, including system architecture diagrams, API references, and end-user guides

Gym Membership Management System — *Java · MySQL* (2024)

- Developed a database-driven desktop application managing 100+ member records across registration, payment tracking, and trainer scheduling modules
- Designed a normalized relational schema and implemented full data validation and error-handling logic to ensure data integrity

University Course Registration App — *Android · Java* (2024)

- Built a multi-screen Android application for course search, registration, and schedule management using OOP design patterns
- Implemented session management and input validation, verified across 3 Android API versions for cross-version compatibility

Automotive Dealer Inventory System — *C++ · OOP* (2023)

- Designed a vehicle inventory and sales management system applying encapsulation, inheritance, and polymorphism with file-based persistent storage

Hardware & Circuit Projects — *Proteus · Breadboard* (2022–2023)

- Designed, simulated, and validated a stress-detection circuit in Proteus and on physical breadboard hardware
- Constructed and verified a 2-bit accumulator using logic gates, confirmed via digital simulation and hardware implementation

EDUCATION

B.Sc. Computer Engineering — Lebanese International University (LIU), Beirut, Lebanon

Graduated: 2026 | GPA: 3.46 / 4.00

- Relevant coursework: Data Structures & Algorithms, Database Systems, Computer Networks, Operating Systems, Embedded Systems, Digital Logic Design, Software Engineering, Web Development, Engineering Ethics

LANGUAGES & PROFESSIONAL ATTRIBUTES

- Arabic — Native | English — Professional proficiency (written & verbal)
- Fast learner — proactively researches and applies new technical frameworks to solve real-world problems
- Structured, methodical approach to debugging, troubleshooting, and quantitative problem-solving
- Proven ability to manage competing priorities and deliver results under deadline pressure