Jana Monzer

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Objective

Distinguished Senior Computer Engineering student specializing in software engineering, full-stack development, AI, and data science. Fast-learner, driven problem-solver focused on building high-quality solutions through hands-on development and research.

Education

Bachelor of Engineering (B.E.) in Computer & Electrical Engineering Aug. 2023 – (Expected July 2027)
Lebanese American University (LAU) Beirut, Lebanon
GPA: 3.61 - Dean's Distinguished List of the School of Engineering
Ranked 20th in Lebanese Baccalaureate all over Lebanon

Courses Taken: Introduction to Programming, Data Structures and Algorithms, Digital Systems Design, Computer Architecture, Microprocessors, Digital Systems, Machine Learning, Deep Learning, Software Engineering, Electronics, Signals and Systems, Electric Circuits, Circuit Analysis, Electromagnetics Engineering.

Selected Projects

Hotel Reservation System — C++ 2025
C++, OOP, STL (vectors/maps), Left Edge Algorithm, JSON File Handling, Scheduling Algorithms

- Built a C++ hotel reservation system using the Left Edge Algorithm to prevent booking conflicts, applying OOP design with STL containers and JSON storage for efficient data handling.

Electronics Lab Management System — Java & MariaDB 2025
Python, MariaDB, SQL, HeidiSQL, Docker, Database Modeling, Relational Schema Design

- Developed a full-stack Electronics Lab Management System in Java/MariaDB with HeidiSQL modeling and Docker deployment, using efficient SQL schemas and containerized execution for reliable end-to-end performance.

Stage Elevator Control System 2025
Low Level Programming: Assembly, Embedded Systems, Hardware Interfacing, State-Machine Design

- Developed an elevator control system in assembly for the HCS12 using CodeWarrior, implementing MCCNT interrupts to scan buttons, control motion, and monitor weight for overload safety.

Voice-Activated Self-Defense Device 2025
Embedded Systems, Arduino, Voice Recognition, Safety Engineering

- Developed a wearable women-safety device integrated into a banana bag, using Arduino-based voice detection to recognize the word help in emergencies. Automatically triggers a pepper-spray release for rapid self-defense response.

AM Signal Receiver — Analog Electronics 2025
Analog Circuits, Electronics, Hardware Prototyping

- Designed and built an amplitude-modulated (AM) signal receiver capable of demodulation, amplification, and delivering sufficient output current to drive a speaker.

Skills

Programming Laungages: Python, C++ Java, HTML, Javascript, Assembly, MATLAB, SQL
Programming Concepts: Object Oriented Programming, Data Structures, Database Systems (MySQL), Full-stack Web Development
Software Tools: Docker, Git/Github, VS Code, LTSpice, PSpice, Quartus, Jupiter Notebook, Eclipse, MySQL, SMP-Cache
Hardware Tools: Arduino, Quartus, CAD tools, Discrete logic ICs, Analog/Digital circuit component, HCS12 Microcontroller

EXTRACURRICULAR ACTIVITIES

- IEEE Student Branch Beirut - President
- LAU Mentorship Program - Member
- Private Tutor