

GIO SALIBA

COMPUTER ENGINEER

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Beirut, Lebanon

PROFILE

Motivated and detail-oriented computer engineering graduate with a strong foundation in programming, hardware design, and embedded systems. Eager to contribute to innovative technologies and solve complex challenges in embedded systems, software development, or cybersecurity. Adaptable and committed to continuous learning, with a collaborative mindset for achieving team goals and exceeding expectations.

ACADEMIC PROJECTS AND EXPERIENCE

2024

University of Balamand | Koura, Lebanon

Implementing a Gaussian Blur Filter on FPGA

- Collaborated in a team of two to design and implement a pipelined Gaussian blur filter using NEWS addition architecture on a DE1-SoC board, providing a cost-effective alternative for efficient image processing with System Verilog.
- Developed a control unit for sequential operations, including input processing, directional calculations, and output handling, with shift register-based design for efficient data manipulation.
- Utilized parallelism and seriality concepts to achieve high-speed processing with minimal hardware overhead, creating a scalable and modular architecture for future expansion.
- Gained expertise in FPGA-based hardware design, troubleshooting, and optimization, including implementing direction control logic and efficient data flow management.
- Note: This project will soon be published in the IEEE Journal and other publications.

EDUCATION

2025 - Present

UNIVERSITY OF BALAMAND

- Bachelor of Engineering

2021 - 2024

UNIVERSITY OF BALAMAND

- Bachelor of Science in Computer Engineering
- Member of the Google Developers Club and the IEEE Computer Society Club

SOFT SKILLS

- Networking and Security
- Software Development
- Computer Architecture
- Hardware and Embedded Systems
- Tools and Frameworks
- Mathematics and Algorithms
- Project management
- Teamwork
- Time Management
- Effective Communication
- Critical Thinking

WORK EXPERIENCE

IT Technician Intern

Lebanese American University | January 2024 - Present

- Troubleshooting and resolving hardware and software issues for faculty, staff, and students.
- Assisting in network maintenance, system updates, and cybersecurity best practices implementation.
- Installing and configuring software, ensuring seamless operation across university systems.
- Providing technical support for IT infrastructure, including printers, servers, and workstation setups.

ACADEMIC PROJECTS AND EXPERIENCE

2024

University of Balamand | Koura, Lebanon

Line-Following Robotic Car

- Worked in a team of two to develop an autonomous 4-wheel line-following robot programmed in C, using a PIC18F45K22 microcontroller and integrated sensors for navigation and control, providing a cost-effective alternative to using PLCs for managing fluids.
- Gained experience in programming microcontrollers with C, integrating sensors and actuators, and troubleshooting hardware-software interactions in an autonomous robotic system.

2023

University of Balamand | Koura, Lebanon

Chebyshev Approximation on FPGA

- Collaborated with colleagues to develop and implement a pipelined FPGA design to accelerate Chebyshev polynomial approximation, providing an efficient and cost-effective solution for evaluating mathematical functions using System Verilog.
- Gained proficiency in FPGA design and debugging, with hands-on experience in implementing pipelined architectures, optimizing hardware resources, and improving collaboration and problem-solving skills through teamwork.
- Gained the ability to properly manage my time while taking into consideration the complexity of the project.

VOLUNTEERING

Scout Du Liban | 2010 - 2018

Strengths of a Scout member:

- We know how to work in teams;
- We are creative;
- We know how to lead and how to be lead;
- We have empathy for others;
- We value effort;
- We know how to set goals and how to evaluate;
- We are generous;
- We are advocates against injustice;
- We are resourceful.

NOTABLE COURSES

- Object-Oriented Programming
- Embedded Systems
- Computer Architecture
- Databases
- Data structures
- Microprocessors
- Cybersecurity
- Telecommunications
- Digital signal processing
- Networking

LANGUAGES

- English (Fluent)
- Arabic (Native)
- French (Native)

PROGRAMMING LANGUAGES

- Java (Intermediate)
- System Verilog (Intermediate)
- C/C++ (Intermediate)
- Python (Intermediate)
- Matlab (Intermediate)
- Java Script/ CSS/ HTML (Beginner)

TECHNICAL SKILLS

- Zelio Soft, Quartus Prime, Proteus, Simulink, LabVIEW, AutoCAD, Visual Studio, Microsoft Office