

Ghadeer Zibara

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Education

Bachelor of Engineering in Computer Engineering

(2024-2028)

Lebanese American University (LAU), Byblos, Lebanon

Experience

Geek Express: Coding Trainer

(2025-2026)

- Taught JavaScript and computational thinking through Minecraft Education Edition, using interactive, game-based activities to develop students' problem-solving skills.
- Facilitated introductory game development sessions using GDevelop, focusing on core game mechanics, event-driven logic, and structured thinking.
- Delivered hands-on lessons that introduced programming concepts in an engaging and accessible way, adapting content to different learning levels.

Extra-Curricular Activities

Millennium Fellowship: Campus Director & Fellow

(2025-2026)

- Selected for a competitive global fellowship focused on leadership development and the UN Sustainable Development Goals (SDGs).
- Delivered and facilitated 6 training sessions on leadership, project development, and social impact for participating fellows.
- Coordinated fellowship activities on campus, ensuring active engagement and progress of all participants.
- Developed *LitterLens*, a sustainability-focused project using technology to monitor litter patterns and promote environmental awareness.
- Collaborated with an international cohort of fellows to refine project impact and align with global sustainability initiatives.

Google Developer Student Club: Core Member

(2024-2025)

- Captured and curated visual content (photographs, videos, and stories) to document club events and highlight initiatives.
- Managed media assets to enhance online engagement and promote the club's activities across social platforms.
- Supported branding and outreach efforts, ensuring consistency in the club's messaging and visual identity.

UN Global Compact Network Lebanon

(2024-2025)

- Underwent a series of workshops on leadership, UN sustainable goals, and how to implement a project that will benefit the community.
- Connected with other fellows around the world and discussed the nuances of each other's projects.
- Attended multiple webinars regarding the UN sustainable development goals with speakers from around the world.
- Acted on the 17 Sustainable Development Goals (SDGs), upheld the Ten Principles of the UN Global Compact, and committed to Forward Faster initiatives.

Projects

Crypto Token

- Designed and implemented a cryptocurrency token ("SlayQueen") using Motoko smart contracts on the Internet Computer (ICP) blockchain.
- Built core token features including balance tracking, transfer mechanics, and a claim faucet system to distribute tokens to users.

- Implemented decentralized state management and immutable ledger-style logic to ensure secure and transparent token operations.
- GitHub repository: <https://github.com/GhadeerZibara/Token-SlayQueen>

Decentralized NFT Marketplace

- Built a fully decentralized NFT marketplace that enables users to mint, list, and sell NFTs using blockchain smart contracts.
- Implemented Motoko-based contracts to handle NFT metadata, minting logic, and ownership transfers securely.
- Designed smart contract workflows to enforce ownership, prevent double-spending, and manage marketplace transactions in a trustless environment.
- GitHub repository: <https://github.com/GhadeerZibara/NFT-Marketplace>

Airport 4.0: Vertically Integrated Project

- Collaborated with a team of student engineers under the supervision of Dr. Pierrette Zouein, at the Lebanese American University, applying Industry 4.0 principles such as real-time monitoring, automation, and data-driven decision-making.
- Built a real-time computer vision pipeline using YOLOv8 and ByteTrack to detect and track people across multiple queue zones in airport CCTV footage.
- Implemented polygon-based spatial filtering to assign tracked individuals to zones per frame, enabling independent per-zone analytics including queue length, wait times, and throughput.
- Designed and integrated a PostgreSQL database on Supabase to log timestamped entry and exit events and periodic zone snapshots, structuring data for future analysis and machine learning model training.
- Built a live monitoring overlay displaying per-zone queue length, average wait time, and throughput in real time.
- GitHub repository: <https://github.com/GhadeerZibara/Airport-4.0>

LitterLens

- Built and deployed a live web platform (React, TypeScript, Vite) that crowdsources geotagged litter reports into an interactive pollution hotspot map across Lebanon.
- Currently developing a mobile app to close the loop between reporting and action, enabling NGOs, municipalities, and volunteers to claim, coordinate, and resolve reported sites in real time.
- Founded and led the initiative through the Millennium Fellowship, aligning it with UN Sustainable Development Goal 11 (Sustainable Cities and Communities).
- GitHub repository: <https://github.com/GhadeerZibara/LitterLens>

Technical skills

Programming Languages: Java (Proficient), JavaScript, C++ (Intermediate), Python, Motoko

Technologies & Tools: PostgreSQL, Supabase, YOLOv8, ByteTrack, Git, React (basic)

Concepts: Object-Oriented Programming, Data Structures & Algorithms, Computer Vision, Basic Machine Learning, Event-Driven Programming, Blockchain Smart Contracts

Certificates

Python Essentials 1: Cisco Networking Academy (in partnership with OpenEDG Python Institute)

Fundamentals of Deep Learning: NVIDIA Deep Learning Institute

Millennium Fellowship Certificate