

Sandra D. Dergham

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EXPERIENCE

CodeMind Academy,

May 2026 - Present

Freelance Coding & Technology Trainer

- Delivering coding and technology sessions for children and teenagers through creative, project-based learning.
- Supporting student progress tracking, evaluations, session feedback and learning-quality improvements.

Murex,

Oct 2025 – Feb 2026

Part-Time Software Engineer

- Contributed to MX.3 C++ backend platform by refactoring the query dispatch mechanism used for client integrations.
- Replaced monolithic switch-case query handlers with a registry-based callback architecture as part of a Query Migration initiative.
- Improved modularity and maintainability by decoupling query definitions from execution logic.

Murex,

Jun 2025 - Aug 2025

Java Backend Development Intern

- Enhanced backend testing infrastructure by doubling unit test coverage using JUnit and Mockito, strengthening system reliability and maintainability.
 - Streamlined the notification workflow by removing redundant processing layers and implementing thread-safe mechanisms for concurrent execution, improving performance and reducing complexity.
 - Optimized notification delivery by introducing stackable and non-stackable handling logic, significantly accelerating improving processing efficiency.
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EDUCATION

American University of Beirut (AUB),

Aug 2023 - May 2026

Bachelor of Science in Computer Science

- Recipient of the USAID Higher Education Scholarship (HES) award.
- AUB HES Club Communications Officer | Member, Computer Science Student Society.

PROJECTS

- **AccessEd:**
Final Year Project developing a web application that evaluates uploaded PDFs against WCAG accessibility standards. The platform analyzes document structure, identifies accessibility issues, generates detailed compliance reports, and produces improved, more accessible versions of the uploaded documents to support inclusive digital content. This is done using Python, OpenAI API, TypeScript, and CSS.
 - **AUBConnect:**
Web platform developed in a Software Engineering course for student course feedback/recommendations. Contributed to frontend development using React.js in a React.js–Node.js stack; selected for Final Year Project Demo Day.
 - **BeyBridge:**
Extracurricular project developing a platform showcasing Beirut services with locations, insights, and community reviews.
 - **Multithreaded Java Web Server**
Developed an HTTP server using TCP sockets and multithreading that handles parallel client requests and serves files with correct HTTP responses.
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EXTRACURRICULAR ACTIVITIES

USAID Higher Education Scholarship Program (HES)

Aug 2023 – Present

- Actively participated in capacity-building workshops on stress management and career development.

Lebanese Red Cross, Youth Sector Volunteer & Facilitator

Nov 2023 – Present

- Led youth activities and educational sessions on road safety, mental health, environment, and human values.

MMKN, Supervisor

Oct 2023 – Present

- Supervising tutoring programs supporting students from public schools.

SKILLS AND HOBBIES

Languages: Fluent in Arabic and English, basic knowledge in French.

Technical Skills: C, C++, Java, JavaScript, SQL; React.js, HTML, CSS; Git, Linux, Postman; JUnit, Mockito; MS Office.

Hobbies: Creative Writing, Gym.