

# Aya Darwich

## Computer Science-AUB Graduate

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### SUMMARY

Recent Computer Science graduate from the American University of Beirut (AUB) and proud recipient of the prestigious USAID scholarship, with a distinguished academic journey that includes an exchange semester at Carnegie Mellon University in Qatar. My diverse technical expertise spans web development, machine learning, data science, artificial intelligence, cryptography, and computer networks, with a strong foundation in developing and demonstrating innovative projects across these domains. With a multidisciplinary skill set and a proactive approach to problem-solving, I am eager to contribute to cutting-edge technology initiatives and apply my knowledge to real-world challenges. Passionate about leveraging my technical abilities and continuous learning to deliver impactful solutions and drive progress in the tech industry.

### SOFTWARE SKILLS

Java | Ruby on Rails | Python | C, C++ | JupyterLab, Google Colab (Machine Learning Tools) | HTML, CSS, React.js, Next.js, Node.js, Express.js, Javascript, Typescript, Nest.js | MySQL (Databases), MongoDB | Visual Studio Code (Development Tools) | Android Studio | Xcode IDE | Kotlin | Swift UI

### SOFT SKILLS

Public Speaking | Adaptability | Leadership | Teamwork | Communication

### WORK EXPERIENCE:

#### Full-Stack Development Intern – Techlarious & Two of Us

March 2025 -Present

Contributed to a MERN full-stack internship focused on building a handmade marketplace platform that connects villages and promotes local small businesses. Developed the frontend using React and Next.js, and implemented the backend with Node.js, Express, and MongoDB, delivering a scalable and community-driven solution.

### LEADERSHIP AND VOLUNTEERING EXPERIENCE

#### Lebanese Red Cross

Jan 2022 –Present

Committed volunteer with the Lebanese Red Cross (LRC) since 2021, contributing to awareness campaigns, summer camps, and health-focused open days. Completed a 120-hour internship, supporting data entry and system management. During the September 2024 conflict, led school visits to provide mental health support and essential medications, consistently demonstrating leadership in team and independent activities.

#### Volunteer with CLAC

Dec 2022- Jan 2023

Assisted students in research, library operations, and resource organization, fostering a supportive learning environment.

#### Volunteer with Offre Joie

Oct 2024

Supported crisis relief efforts by distributing food, clothing, and essentials to those affected by war, demonstrating compassion and community dedication.

#### Volunteer with Raseef Beirut

Nov 2024

Participated in meal preparation and distribution for vulnerable individuals sheltered in schools during crises.

#### CMPS Tutor

Dec 2024

Guided USAID peers in Data Structures, fostering academic success through personalized support and collaborative problem-solving.

#### Khelkhal, AUBMC

March 2023

Supported kidney patients by offering emotional care and creating uplifting moments during treatments.

#### USAID Open Days

June 2023

Welcomed shortlisted students, prepared them for interviews, and shared experiences as a USAID scholar

to inspire and guide them.

### Attendee, Web Summit Qatar

Feb 2024

Gained industry insights and networked with global tech leaders during the exchange semester.

### Start for Good Participant with European Innovation and CMU-Q

Oct 2024- Nov 2024

Developed *Cre8Time* prototype addressing time management, achieving recognition as one of the top 10 teams.

### Community Service Project: Internally DisplaceAid

Jan 2024

Led psychosocial workshops for displaced Lebanese children, fostering resilience and supporting mental health.

## EDUCATION

- **Bachelor of Science: Computer Science**

Graduated: Dec 2024

American University of Beirut AUB – Lebanon

- Graduate Computer Scientist with USAID Scholarship, recognized for academic excellence and leadership with a GPA 3.53
- Active in rigorous academic and extracurricular activities

- **Exchange Semester**

Spring-2024

Carnegie Mellon University – Qatar

- Enhanced expertise in advanced computer science courses and cross-cultural collaborations
- Supported by Education Above All Scholarship

## ACADEMIC PROJECTS

- **Machine Failure Prediction and Classification:** Built a machine learning model to predict and classify machinery failures, enhancing maintenance and reducing downtime.
- **Robotics Error Logs Database:** Designed and implemented a MySQL database system to track and analyze robot error logs, improving error resolution and overall performance.
- **Gotham City Police Department System:** Built a Ruby on Rails web management system for the Gotham City Police Department, streamlining data and operations to boost efficiency and responsiveness.
- **Spellcasting Game Development Project:** Developed a C-based command-line spellcasting game with human and AI players. Implemented play order logic, game rules, and modular source files, showcasing skills in algorithms, game mechanics, and AI concepts.
- **DreamDecoder: AI Dream Analysis App:** Android Studio, Java. Developed an AI-powered mobile app for dream analysis with personalized interpretations. Built the app's interface using Java, and integrated Firebase for authentication and data management.
- **Mayyil Aa Lebnen:** Website; Developed and deployed *Mayyil aa Lebnen*, a tourism website using HTML, CSS, JS, and MySQL to help tourists plan customized trips in Lebanon. The platform features itinerary building, theme-based exploration, and highlights top attractions, showcasing skills in web development and user-focused design.
- **Public Policy- Knowledge Graphs:** Explored migration-related public policy using knowledge graphs, applying clustering, link prediction, and classification to analyze trends and relationships. Visualized insights to inform stakeholders, highlighting the potential of data-driven solutions for complex global challenges.
- **Unreliable Data Transfer Protocol:** Developed a reliable data transfer protocol over UDP as part of a Networks course. Simulated packet loss and delays with a Java-based server and implemented ACKs, retransmissions, and timeouts to ensure reliable file transfers, showcasing skills in socket programming and protocol design.

## CERTIFICATIONS

- Certificate in Artificial Intelligence (ZAKA)
- Certificate in Python for Data Science (ZAKA)
- Start For Good
- Dean's Honors List