

JOYA BARAKAT

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TECHNICAL SKILLS

- **Languages:** Python, C++, C#, SQL
- **Frontend:** HTML, CSS, JavaScript, React
- **Backend & Frameworks:** Flask, .NET, Streamlit
- **Databases:** PostgreSQL
- **Spoken Languages:** English (Fluent), Arabic (Native) , French (fluent)

EDUCATION

American University of Beirut (AUB)

Bachelor of Science in Communication and Computer Engineering

Expected Graduation: Spring 2026

Relevant Coursework

- **Machine Learning:** Built predictive models and evaluated performance with standard metrics
- **Software Engineering:** Led agile sprints in a team-based healthcare software project
- **Database Systems:** Designed scalable relational schemas; optimized complex SQL queries
- **Data Structures & Algorithms:** Implemented and analyzed efficient algorithms in C++

PROJECT

Accreditation Data Management System (ADMS) – Final Year Project

ASP.NET Core, PostgreSQL, React, Docker, NLP | In Progress (Expected Completion: Spring 2026)

- Developing a web-based accreditation management system to automate ABET compliance processes for university engineering programs
- Designing a centralized evidence repository with automated CLO-to-SO (Course Learning Outcomes to Student Outcomes) mapping using NLP algorithms
- Implementing role-based dashboards for faculty, coordinators, and administrators with real-time analytics and automated report generation
- Building RESTful APIs for integration with Learning Management Systems (LMS) and Student Information Systems (SIS)
- Applying security standards (ISO 27001, FERPA, GDPR) with AES-256 encryption and role-based access control

AI-Based IoT DDoS Detection System

Python, Deep Learning, Docker, Streamlit

- Developed and trained a lightweight neural network (94% accuracy) for detecting DDoS attacks on IoT devices
- Designed and deployed a containerized real-time API for low-latency threat detection
- Built a preprocessing pipeline to clean and structure raw network traffic data

ClickClinic – Medical Scheduling Platform

Flask, PostgreSQL, HTML/CSS, JS

- Engineered backend architecture for an appointment system linking patients and doctors
- Designed and integrated a PostgreSQL database for secure, scalable data handling
- Collaborated with frontend developers to ensure responsive and intuitive user interfaces
- Implemented a metrics dashboard for performance monitoring and admin insights