# Karim Abboud

## Beirut, Lebanon

### **EDUCATION**

## American University of Beirut

Aug 2022 - May 2026 (Expected)

Bachelor of Computer Science Engineering | Concentration: Cybersecurity & Networking

Beirut, Lebanon

Relevant Coursework: Data Structures & Algorithms, Object-oriented & Effective Java Programming, Design & Analysis of Algorithms, Computing Networks & Services, Ethical Hacking I & II, Internet Security Lab, Cryptography & Network Security, Operating Systems.

## **CERTIFICATES**

• Introduction to Cybersecurity (Cisco)

Cisco

• React - The Complete Guide 2024 (incl. Next.js, Redux) (Udemy)

Udemy

## EXPERIENCE

## Tutoring EECE 230, 330 (Python, Data Structures)

Aug 2023 - Present

American University of Beirut

Beirut, Lebanon

 Provided support for students in courses like EECE 230 (Python) and EECE 330 (Data Structures), enhancing understanding and fostering a conducive learning environment.

## Capture The Flag (CTF) Projects

Jan 2024 - Present

 $Cybersecurity\ Competitions$ 

Online

- Participated in CTFs, exploiting vulnerabilities in VMs, binaries, and web apps.
- Focused on web exploitation, cryptography (RSA, XOR), reverse engineering, and forensics.
- Ranked top 10% in **picoCTF 2024 by CMU** (1389/14000), solving cryptography and binary challenges.

#### **PROJECTS**

ERP System (Full-Stack Django Application) | Django, Python, JavaScript, HTML/CSS

Apr 2024 - Present

- Developed and deployed a comprehensive ERP system using Django, handling both front-end and back-end responsibilities.
- Implemented secure business processes, including user authentication and database integration, reducing unauthorized access by 50%.
- Designed and deployed automatic invoice generation, ensuring smooth and efficient workflows. reducing manual processing time by 40%.
- Applied complex business logic to manage key organizational functions like inventory management, order processing, and reporting.
- Ensured data integrity and delivered a seamless user experience across various system modules. With user satisfaction rating of 90%.

Frontend Developer for GPA Calculator | React, API Integration, JavaScript

Mar 2024 – Jun 2024

- Developed the frontend of a responsive GPA calculator using React. See code on This GitHub Repository.
- Focused on dynamic inputs, real-time calculations, and validation to enhance user experience and reduce user input errors by 35%.
- Collaborated with backend developers to integrate the frontend with an API for retrieving accurate course data and grades.

Python Proxy Server with Advanced Cache Management | Python, Sockets, Flask, Networking

Oct 2023 - Nov 2023

- Led a team of 3 to develop ProxyGuard, a robust proxy server featuring advanced cache management achieving a 40% increase in cache efficiency and reducing latency by 30%.
- Implemented authentication and optimized performance for high traffic loads. See code on This GitHub Repository.
- Designed the system for efficiency, scalability, and reliability, using multi-threading to increase concurrent request handling by 60%.
- $\ \ Enhanced\ control\ over\ network\ access\ by\ implementing\ a\ website/IP-blocking\ feature,\ allowing\ administrators\ to\ manage\ client\ requests.$

#### EXTRACURRICULAR ACTIVITIES

### Volunteering at Non-Profit Organization

300+ hours

Assisted medical professionals by providing patient care support and managing medication distribution in a healthcare setting.

# SKILLS & INTERESTS

Soft Skills: Communication, Teamwork, Analytical Thinking, Problem Solving, Creativity, Adaptability, Leadership Programming Languages/Scripting Languages: Bash, Python, C/C++, Java, C#, Type/-JavaScript, Batch, PowerShell Tools/Technologies: Git, Docker, VS Code, Wireshark, Security Frameworks: OWASP, Metasploit, Nmap, Burp Suite Languages: English (Fluent), Arabic (Native)

Interests: Software Engineering, Cybersecurity, Ethical Hacking, Ping-Pong, Chess, Community Service