

AHMAD KARNIB

Beirut, Lebanon
+96176938335 | karnib.ahmad@gmail.com

EDUCATION

American University of Beirut
B.E. in Computer & Communications Engineering
Dean's Honor List

August 2023 – Expected June 2027

Relevant Coursework

- Data Structures & Algorithms
- Signals and Systems

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, MATLAB
Systems: Linux fundamentals, Networking basics (TCP/IP, DNS), HTTP basics
Containers & CI/CD: Docker, Jenkins, GitHub
Cloud Concepts: VPC basics, monitoring fundamentals
Tools: VS Code, Jira, LaTeX
Soft Skills: Creativity, Problem-Solving, Communication, Teamwork, Leadership, Strategic Thinking
Languages: English (Fluent), Arabic (Native), French (Fluent)

WORK EXPERIENCE

IT Assistant, American University of Beirut (AUB) 	Aug 2025 – Present
<ul style="list-style-type: none">• Troubleshoot day to day system, software, and connectivity issues for faculty, staff, and students, prioritising fast resolution and clear communication.• Support software installation, workstation setup, and basic network maintenance, documenting recurring issues and fixes.	
Computer Networking Internship, Dar Al Handasah Nazih Taleb & Partners – Lebanon 	Dec 2023 – Jan 2024
<ul style="list-style-type: none">• Assisted with network setup and troubleshooting in a real environment, including connectivity checks and basic maintenance tasks.• Built stronger debugging habits by working through practical issues under time constraints.	
Art Gallery Assistant (Work-Study Program), AUB Byblos Bank Art Gallery 	June 2025 – Present
<ul style="list-style-type: none">• Led gallery tours, supported inventory/front desk operations, and assisted with exhibition setup and artwork preservation.	

RESEARCH EXPERIENCE

Undergraduate Researcher, American University of Beirut (AUB) 	Aug 2025 - Present
<ul style="list-style-type: none">• Develop ML methods for transportation mode recognition using smartphone and cellular network signals.• Engineer features from mobility and signal patterns, train baseline models, and evaluate performance using standard metrics.• Explore resource-efficient and privacy-preserving approaches for on-device or low-data settings in mobile sensing and IoT.	

PROJECTS

Student Registration App 	May 2025
<ul style="list-style-type: none">• Developed a student registration platform with features for course add, drop, and schedule viewing.• Implemented client-server communication over TCP sockets to handle student requests and real-time updates.• Built backend logic for course capacities, time-conflict checks, and user authentication.	
PharmFind – Medicine Finder and Delivery App 	Sept 2025
<ul style="list-style-type: none">• Built a mobile and web platform for Lebanon to help patients find medicines during stockouts by checking pharmacy availability in real time and enabling pickup or home delivery.• Implemented the core MVP workflow: medicine search, pharmacy availability (list + map), order placement (pickup/delivery), prescription validation, cash-on-delivery, and basic delivery tracking, plus a pharmacy portal for stock updates and order acceptance.• Designed the system architecture covering patient app, pharmacy portal, driver module, and admin dashboard, containerised components with Docker, and set up a Jenkins pipeline to automate builds and deployments.	
Digital Communication Systems Project 	Sept 2025
<ul style="list-style-type: none">• Built MATLAB modules for signal representation, including Nyquist sampling and Fourier series approximation, to demonstrate aliasing and reconstruction accuracy.• Implemented quantization schemes (two-level, uniform multi-level, Lloyd-Max), measuring MSE and analyzing rate-distortion performance.• Integrated modules into an end-to-end digital communication chain, comparing throughput, entropy, and coding efficiency under different quantization methods.	

- Implemented AES encryption/decryption in five modes (ECB, CBC, CFB, OFB, CTR) with support for AES-128/192/256.
- Built a web UI for text and file encryption, including batch processing with ZIP export, key generation, and HEX/Base64 output toggles.
- Validated correctness using NIST SP 800-38A test vectors and round-trip tests across multiple modes.

LEADERSHIP AND ACTIVITIES**AUB Outdoors** — Operations Team Member

May 2025

- Supported event logistics, operations, and crowd management.

Engineering Student Society — Event Officer

2024 – Present