#### Zora Banbouk

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### Education

• American University of Beirut

Bachelor's in Computer and Communications Engineering Expected Graduation: June 2026

• Hariri High School 2, Beirut

Lebanese Baccalaureate, Official (2022)

Graduated with Excellence

# **Projects Accomplished**

- **Medical Scheduling Software** (Software Engineering Course-Ongoing)

  Developing a software application for medical appointment scheduling, focusing on usability and efficiency.
- Food Menu Web Development (Self-Initiated Project Dec 2024)
  Designed and developed a food menu web application using HTML and CSS during free time to enhance web development skills.
- Cryptography Web Application (Cryptography and Network Security Course Nov 2024) Collaborated with a team to build a React.js frontend and Python Flask backend, featuring classical encryption methods (e.g., Hill Cipher) and advanced concepts like the Chinese Remainder Theorem.
- **IoT Transceiver Research** (*RF Transceiver Design Course -Nov 2024*) Conducted research on FM-UWB and SWIPT technologies, focusing on their architecture and design for IoT applications.
- MATLAB Communication Chain (Communication Systems Course -Dec 2024)
  Developed a MATLAB-based communication chain comprising sampling,
  quantization, and noise addition to analyze noise handling in communication systems.
- Chat Time Application (Networking Course -May 2024)
  Developed a Python-based chat application with server-client interaction and SQL database integration for user data management.
- **Graph Algorithm Implementation** (Data Structures and Algorithms Course- Dec 2023) Worked in a team to implement graph algorithms, including BFS, Dijkstra's Algorithm, and graph traversal techniques, using C++.
- Washing Machine Control Logic (Digital Design Course- July 2023)
  Designed and implemented washing machine control logic using Verilog, demonstrating practical applications of digital design principles.

## **Technical Skills**

- Programming Languages: Python, C++, HTML, CSS, JavaScript, Java, Linux
- **Networking:** TCP/IP, Wireshark
- Cryptography: Proficient in encryption techniques and cryptographic algorithms
- Database Management: SQL

- **GUI Design:** Experienced in designing graphical user interfaces
- Languages: Fluent in English and Arabic (reading, writing, and speaking)

### **Certifications & Volunteer Experience**

- Forest Biodiversity Exploration and Conservation (July 2024)
  Participated in a forest exploration project focused on biodiversity maintenance.
  Studied and documented plant species through research and photography.
- AUB Commencement Event Volunteer (June 2024)
  Coordinated logistics and provided event support to ensure seamless operations during the AUB Commencement ceremony.
- AUB Insight Club Volunteer (April 2024)
  Collaborated with NGOs on various community-driven projects and assignments, contributing to impactful social initiatives.
- **First Aid Certification** (*May 2024*)
  Successfully completed comprehensive first aid training, acquiring life-saving skills and emergency response techniques.
- **IEEE Member:** Actively engaged in IEEE events and initiatives to stay updated on industry trends. (May 2024)
- **React Workshop Certification:** Successfully completed a React web development workshop, certified by Objectia Academy. (*Jan 2025*)
- **Python Programming Bootcamp** (Dec 2022)
  Gained advanced Python programming skills through an intensive, hands-on training program.