

Sacha Y. Hannoun

Lebanese Citizen | syh15@mail.aub.edu | +961 76694994 | LinkedIn: <http://linkedin.com/in/sacha-maria-hannoun-760073324>

EDUCATION

American University of Beirut (AUB)

BEng in Computer and Communications Engineering

Beirut, Lebanon

August 2023 – May 2027

- **GPA:** 3.3/4.00
- **Activities and Societies:** IEEE AUB student branch, AUB Consulting Club
- **Relevant Focus:** Convex optimization, networking, secure communications

Collège Saint Joseph Antoura

French Baccalaureate, Specialization in Math, Physics & Chem

Antoura, Lebanon

September 2009 – June 2023

- **Awards & Achievements:** Diploma with Distinction

RESEARCH EXPERIENCE

Ethical Wireless Communications and Sensing

Research Assistant

AUB, Lebanon

Aug 2025 – Present

- Formulating wireless resource allocation under biological exposure limits as a convex optimization problem.
- Implementing and simulating models in MATLAB under varying channel and constraint conditions.
- Analyzing throughput-exposure trade-offs and collaborating with faculty and PhD researchers on ongoing results.

PROJECTS

Machine Learning

Real-time Object Detection

AUB, Lebanon

Present

- Training a YOLO-based object detection model using transfer learning and data augmentation.
- Preprocessing datasets and tuning hyperparameters to improve detection accuracy.
- Evaluating precision and optimizing inference speed to reduce computational cost.

Cryptography and Networking

El Gamal Encryption

AUB, Lebanon

December 2025

- Implemented ElGamal cryptosystem in Python using large-prime modular arithmetic.
- Simulated encrypted data transmission and measured latency across key sizes.
- Analyzed trade-offs between security strength and computational overhead.

PROFESSIONAL EXPERIENCE

Hannoun Computer Company (HCC)

Sales Assistant

Baabda, Lebanon

July – Aug 2023

- Advised customers on hardware and software solutions based on performance needs.
- Configured and tested PC systems while supporting troubleshooting and inventory coordination.

VOLUNTEERING

Guides du Liban

Scout Chief-Safety Lead

Antoura, Lebanon

May 2018 – May 2024

- Led and coordinated teams during field activities, ensuring safety planning.
- Coordinated emergency response and logistics.

Collège Saint Joseph Antoura

Tutor

Antoura, Lebanon

January-May 2023

- Provided academic support and mentoring in mathematics, physics and IT.

SKILLS

Programming: C++, Python, Java, Verilog, Assembly, MATLAB

Systems & Tools: Arduino, PSPiICE, HFSS, Linux (basic)