# Majd Aboul Hosn | Computer and Communications Engineering Student

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# Objective

Dedicated Computer Engineering student at the American University of Beirut (AUB), on the Dean's Honor List each semester.

Passionate about programming, networking, and coding, aiming to advance in a cybersecurity and engineering career.

#### Education

## American University of Beirut (AUB)

BE, Computer and Communications Engineering

Expected 2027 | GPA: 3.88

#### Collège des Sœurs du Bon Pasteur, Hammana

Lebanese Baccalaureate Certificate (General Science) with distinction 2023

## **Projects**

Cognify — AI for Mental Health (VIP, Ongoing): Cross-disciplinary VIP at AUB developing AI-powered tools for early detection and personalized support in cognitive and mental health disorders (ASD, ADHD, depression, anxiety). Role: front-end and back-end development with LMIC team to integrate multimodal data (speech, movement, eye-tracking, VR interactions) into explainable, privacy-preserving AI solutions.

**Tic-Tac-Toe** (Python, Networking): Solo project. Networked client/server Tic-Tac-Toe with turn synchronization and socket-based communication.

**Multiplayer Racing Game (Python, Networking)**: Developed front-end in PyQt, contributed basic back-end in SQL, and implemented slowdown, shooting, and ammo box features.

**GRAND Decoder Pipeline (Verilog)**: **Team of 2.** Built pipelined decoder for 7-bit codewords with error-pattern generator, XOR stage, lookup matrix, hit counting, and testbench.

**Traffic Light Controller FSM (Verilog)**: **Team of 4.** TimingCounter + SignalGenerator modules implementing sensor-aware NS/EW phases; verified via testbench.

**Cryptography Project (In Progress)**: Coursework project under definition. **Entrepreneurship in Engineering (In Progress)**: Business project evaluating profitability and feasibility of an engineering venture.

Machine Learning Project (In Progress): Coursework project not yet defined.

## Certifications

Industry Program Bootcamp 4.0: *Machine Learning Track* — AWEX & WIE & MFSEA

Arduino Workshop Series — AUB Robotics Club

Lebanese Civil Defense Training

FEAA 2020 Certificate of Appreciation

Diplôme de participation — Festival de Théâtre, *Les Joutes Molière* 

## **Technical Skills**

Languages: Arabic (Fluent)	English (Fluent)
French (Fluent)   Spanish (Beginner)	
Coding Languages: Python	Verilog   C++
Java   SQL   PyQt	Risc V Assembly
PSpice	

# Clubs & Memberships

IEEE AUB | ACM Club | 180 Degrees Consulting Club

# **Volunteering Experiences**

#### **Progressive Scout Association**

Member

Leadership and community service through active participation and event organization.

#### **Progressive Youth Organization**

Vice President

Organized charity events and awareness programs on human rights and civic topics.

#### **AUB Outdoors**

Security Team Member

Assisted with safety and crowd management; honored at gala as one of the best-performing security members.