

# OMAR JAROUDI

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## OBJECTIVE STATEMENT:

A computer and communications engineering student capable, with strong academic merit and prior experience, of applying engineering concepts and inventive approaches to achieve given objectives.

## EDUCATION:

- American University of Beirut, Beirut Lebanon (Sep 2017-June 2021)  
Bachelor's degree in Computer and Communications Engineering, GPA: 4/4, Dean's Honor List

## WORK EXPERIENCE:

- Murex Systems – Beirut, Lebanon (June 2020 – Aug 2020)  
Integration Development Intern: Developed, tested, and deployed proof-of-concept MuleSoft applications to tackle upgrades related to API-led connectivity functionalities, including:  
Message broker: Upgraded the message broker used by the team, ActiveMQ 5.x, to its next-generation successor, ActiveMQ Artemis.  
Mule runtime engine: Upgraded the runtime engine from Mule 3 to Mule 4.
- Apliman Technologies – Beirut, Lebanon (Aug 2019)  
Software Development Intern: Developed and tested functionalities of application software including:  
Web development: Tested back-end functionalities of web applications that use Spring and Hibernate frameworks.  
Data science: Implemented clustering algorithms to classify incoming user data and improve automated decision-making accordingly.
- American University of Beirut – Beirut, Lebanon (Sep 2018 – Dec 2018)  
Teaching assistant: Prepared and presented lab sessions for an introductory programming course with C++ and Matlab.

## RESEARCH EXPERIENCE:

- Contact-free heart rate estimation (July 2019 – Feb 2020): Designed a program using Python to measure human heart rate without skin contact, by analyzing variations of RGB pixel values in videos of a person's face. The project was supervised by a professor at AUB and sponsored by a third-party organization.

## PROJECT EXPERIENCE:

- Final Year Project: Currently developing a lightweight software solution for a vulnerability in smartcard payment systems, known as the relay attack, that introduces minimal complexity to the current smartcard payment protocol.
- Airplane Parking Reservation: Created a multithreaded client-server application, using Java, that implements a parking system for airplanes; the application included a GUI and an SQL database.
- Optimized Bus Routes in Beirut: Simulated an optimized public transport grid for the city of Beirut by implementing parallelized path-planning algorithms using CUDA.

## SKILLS:

Programming: Python, Java, C++, MuleSoft, CUDA, VHDL, SPICE, RISC-V  
Languages: English (Fluent), Arabic (Native), French (Basic)  
Other: MS Office

## VOLUNTEERING EXPERIENCE:

Volunteered as a literacy tutor for a group of underprivileged children over a period of 9 months.

## EXTRACURRICULAR ACHIEVEMENTS:

- Participated in the Model United Nations (MUN) conference, and gave speeches representing Cambodia in the International Atomic Energy Agency (IAEA) committee.
- Al Riyadi Club basketball varsity team class of 2000.
- Participated in national rapid chess tournament in 2017.
- Member of the Institute of Electrical and Electronics Engineers (IEEE).