

# USJ



Université Saint-Joseph de Beyrouth  
Faculté d'ingénierie  
Faculté des sciences



## MASTER IN DATA SCIENCES

## Why Data Science ?

- Data is everywhere, social media and smart devices are constantly generating massive data
- Regardless of the field, e.g., industry, medical, healthcare, information technology, data analysis has a vital role for future decisions
- The national, regional and international market is increasingly looking for Data Science experts
- To develop services exploiting the power of massive data analysis



### Academic Advisor

This program is provided in common between the Faculty of Engineering (ESIB) and the Faculty of Sciences and managed by 2 advisors, one advisor from each faculty. For inquiries, please contact us by email [fi@usj.edu.lb](mailto:fi@usj.edu.lb) or [fs@usj.edu.lb](mailto:fs@usj.edu.lb)

## Program Objectives

- The program focuses on Mathematical skills, Statistics and Data Analysis tools for Artificial Intelligence, Machine Learning and Big Data analysis.
- We see our students as future consultants with versatile and multidisciplinary profiles:
  - Capable of transforming big data information into decision-making tools,
  - Collecting and processing big data using powerful algorithms
  - Capable of leading research topics in the fields of Big Data, Machine Learning and Statistics.

## Admissions

This program is mainly dedicated for the following profiles:

- Holders of a Bachelor or Master's degree in mathematics or computer science or a diploma considered equivalent by the USJ equivalence committee.
- Holders of a Bachelor degree in mathematics, option Data Science.
- Holders of an engineering degree in information technology or a related field
- ESIB students enrolled in the fifth semester of computer engineering program.
- Application form:  
<https://www.usj.edu.lb/fs/diplome.php?diplome=935>

## Program organization

- 1 The program spans over four semesters covering 120 credits of which 30 credits are dedicated for an intensive internship on projects proposed either from national or international industry or from academic laboratories in the fields of Data, Artificial Intelligence and Machine Learning.
- 2 Courses are provided by 2 different faculties, the Faculty of Sciences, and the Faculty of Engineering.
- 3 Seminars provided by industrial partners are provided throughout the program in order to give students insight into their learning outcomes and the potential applications fitting the market needs.
- 4 The program focuses on Data treatment and analytics, programming languages like python, C++ and R, statistical tools, Artificial Intelligence and Machine Learning.



## Profile outcomes

- Data Scientist
- Data analyst and manager
- Data strategist, Big Data consultant
- Statistical expert
- Project Manager
- Business developers
- Chief Data Officer
- And much more...

## Potential Openings

- Marketing Coordinator/Manager
- Market Analysis Researcher/Market Analyst
- Medical Representative
- Sales Supervisor/Manager
- Product/Brand Specialist
- Communication Manager
- Technico-commercial Trainer/Negotiator
- Entrepreneur

**The detailed program organization is available at the following website:**

<https://www.usj.edu.lb/fs/diplome.php?diplome=935#>

## Required documents

- Certified true copy of the Lebanese Baccalaureate or equivalent
- Certified copies of obtained diplomas
- Certified copies of grades transcripts obtained during university studies
- A certificate if studies are in progress and degree not awarded
- List of accomplished university courses
- Extract of the civil register
- One identity photo
- CV

## Program Outcomes

- Collecting Data using advanced techniques
- Cleaning & preparing Data for analysis
- Applying advanced statistical tools
- Building a Machine Learning pipeline
- Designing useful Artificial Intelligence programs for applications

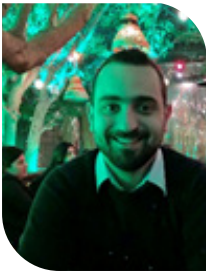
## Student Testimonials



**Marvin Moughabghab,**

Technical Analyst at Murex, Class of 2019

Graduating with a data science master's degree from USJ contributed to my exposure to a very wide array of opportunities. I was able to notice how employers in Lebanon and abroad are interested in the potential, the skills, and the very diverse tool stack of a data scientist. From manipulating statistical data to designing innovative machine learning algorithms, this formation ensured that I become well prepared to take over the most challenging tasks.



**Rami Kanaan,**

Data Scientist at Equadis, Class of 2020

During my studies, I've had the opportunity to work on real-world projects using Time Series Analysis, Machine/Deep Learning, Data Visualization, and Big Data Frameworks. The master's program in Data Science at USJ enabled me to build essential skills to analyze and manage such massive amounts of data. Equadis afforded me the opportunity to spearhead projects focused on Big Data processing, mining, and modeling. These projects allowed me to expand my predictive analytics capabilities drastically and produced substantial results for our clients.


## Professional Partners Testimony




**Paul Tauk,**

Founder and CEO of Neumann | [www.neumann.ai](http://www.neumann.ai)

Being the founder of Neumann, a company that specializes in data processing and analytics, I find the list of courses offered for the new Master in Data science at Saint Joseph University of Beirut very wise, excellent choice. This is the kind of courses that students who want to work with data need to learn. We are eager to see this initiative hold fruits so we can hire the resulting talents and we will not be the only ones.

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