



# Malek Senoussi, PhD

Data Scientist  
Machine Learning Researcher  
& Engineer  
Professor  
Here's my Portfolio



## Selected projects

### Analysis of large-scale datasets

Develop models to classify single-cell RNA-seq data (+20K features), improving cell type and gene expression identification.

### Interactive Data Visualization

Design and develop interactive visual dashboards using Plotly to simplify data exploration and interpretation.

### Large-Scale model training on clusters

Deploy and train thousands of deep learning models on high-performance computing clusters, optimizing performance and resources.



## Work experience

2025

### Sailing

Skipper and volunteer sailor for associations in Mediterranean

2024

### PhD researcher

at LIS and Centuri Laboratory, Marseille, France.

↑  
2020

Research in Machine Learning applied to biology. Scientific publications in different fields: Partial label learning, Hierarchical novel class discovery and Random walk.

↑  
2023

### Supervisor of research internships

at LIS, Marseille, France.

↑  
2021

Co-supervision of research projects of students from engineering school and university.

↑  
2023

### Professor in preparatory classes

in Thiers High School, Marseille, France.

↑  
2021

Oral examination in prep class MPSI

↑  
2020

### Research internship

at LIS, Marseille, France.

↑  
2018

Mathematical modeling of the embryogenesis of *C. elegans*.

↑  
2017

### Teacher in middle school

in Chateau Forbin, Marseilleveyre, Sylvain Menu, Marseille, France.

Professor of Mathematics



## Education

2024

### PhD in Mathematics and Computer Science

Classification of single cell RNA sequencing.

Aix-Marseille University

Keywords : Deep Learning, Machine Learning, Statistics.

2020

### Master 2 Mathematics and Applications CEPS

Aix Marseille University.

Theoretical skills: Probability and Statistics.

**Applications:** Statistical methods for Brain Imaging, Machine Learning theory, Statistics in Pharmacology.



## Contact

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 Portfolio  
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## Profile

Doctor in Mathematics and Computer Science applied to multidisciplinary and challenging environments. Quick to learn new technologies and committed to delivering high-quality results. Enjoys sharing knowledge and thrives in collaborative settings.



## Technical Skills

- Languages & Tools**  
Python, SQL, Bash, Docker, Git Libraries
- Domains**  
PyTorch, Scikit-learn, NumPy, Pandas, Dask, Dash, Seaborn Domains
- Deep Learning, Machine Learning, Data Analysis, Statistical Modeling, HPC



## Languages

French	Native
English	Fluent C1
Italian	Basic B1



## About me

Oud player performing Greek and Arabic music repertoires.  
Passionate about sailing, Mediterranean culture, and traditional music.  
Enjoys exploring new cultures through travels.