



Malek Senoussi, PhD

Data Scientist
Machine Learning Researcher & Engineer
Professor

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**
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2020
at LIS and Centuri Laboratory, Marseille, France.
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**
↑
2021
at LIS, Marseille, France.
Co-supervision of research projects of students from engineering school and university.
- 2023 ● **Professor in preparatory classes**
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2021
in Thiers High School, Marseille, France.
Oral examination in prep class MPSI
- 2020 ● **Research internship**
at LIS, Marseille, France.
Mathematical modeling of the embryogenesis of *C. elegans*.
- 2018 ● **Teacher in middle school**
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2017
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.

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.

Contact

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Technical Skills

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

Languages

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|---------|-----------|
| 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.