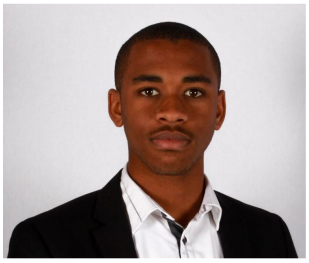
Mimoun MOHAMED



Languages

French : *Native*
English : *C1 level*
Spanish : *A2 level*
Japanese : *A1 level*

Machine Learning

Advanced
Spacy, OpenCV, Monai
Pytorch, Keras, Jax
Kedro, Scikit-Learn
MLFlow, Selenium

Coding Skills

SQL, Python
Advanced
Matlab, Java, CamL
Intermediate
C/C++, VBA, Fortran
Basic

System

Slurm, Linux, API
Intermediate
Google Cloud Platform
Basic

Web

Intermediate
HTML, PHP, CSS, JS
Git, Node.js, Express
Vue.js, FastAPI
Symfony, Django

Management

Project, Team and
Agile management
Supervision of two
trainees

Interest

Piano, Tennis, Cooking
Partner dance, Games
Badminton, Traveling
Reading, Hiking

Contact

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https://mimoun-mohamed-lab.github.io/index.html

Available wordwide from September 2025

PhD graduate working on efficient learning and sparse optimization, with interests in theoretical research and applications, particularly in healthcare, education, and environmental fields.

Education

2021 - 2025 **PhD - Exploratory algorithms for frugality by sparsity** AMU/LIS (QARMA)/I2M (SI)
Supervisors: Valentin EMIYA (LIS) and Caroline CHAUX (IPAL, CNRS)
Mobility: 3-months at IPAL in Singapore
Publications:
Fréour, and al. "Machine learning applied to the prediction of trumpet bifurcation diagrams: towards a tool for trumpet designers." Forum Acusticum 2023
Mohamed, and al. "Prediction of trumpet performance descriptors using machine learning", Acta Acustica 2024
Mohamed, and al. "Straight-Through meets Sparse Recovery: the Support Exploration Algorithm.", ICML 2024
Mohamed, and al. "Learning Permutations in Monarch Factorization", ICASSP 2025

2020 - 2021 **Master degree - Artificial Intelligence and Machine Learning** Aix-Marseille University
Courses: Deep Learning, Data Science, Large Scale Programming, Reinforcement, Langage processing, Modeling

2019 - 2020 **Post-graduate degree** CentraleDigitalLab@LaPlateforme_, École Centrale Méditerranée, France
Courses: Deep Learning, Data Visualization, Data Science, Web development, Agile software development, Test Driven Development, Design Thinking

2017 - 2021 **Master of Science: Generalist engineer** École Centrale Méditerranée, France
Major: Research and Development, Mathematics, Computer Science, Economics, Information Science and Digital Society

2015-2017 **Classes Préparatoires aux Grandes Écoles** Lycée Michel Montaigne, Bordeaux, France
Major: Mathematics, Physics and Computer Science

Professionnal Activities

2024 - 2025 **Teaching: Aix-Marseille University** Marseille, France
192 hours of teaching, from undergraduate to post-graduate level
Data Science, Deep Learning, Python, Computer Science, Algebra and Analysis

2023 - 2024 **Teaching: École Centrale Méditerranée** Marseille, France
78 hours of teaching at the graduate level
Object-Oriented Programming, Algorithms, and Databases

2021 - 2023 **Industry-Academic project: Yamaha Music Japan and LMA** Marseille, France
Collaboration with Keita Arimoto and Vincent Fréour
Designing a business tool using Machine Learning to predict trumpet bifurcation diagrams, assisting acoustic engineers in designing trumpets

2021 **Machine Learning Industrial Research Internship: Euranova** Marseille, France
Five months engineer internship
Visual interpretability methods, Machine Learning and Radiomics applied to 3D PET-scan for the treatment of follicular lymphoma

2021 **Research project: Computer Science and Systems Laboratory (LIS)** Marseille, France
Three weeks project
Study and application of the visual interpretability method by C. Chen, et al. 'This looks like that: deep learning for interpretable image recognition.', 2019

2020 **Machine Learning Industrial Internship: Compagnie Fruitière (SCB)** Abidjan, Ivory Coast
Six months intership
Tree counting with UAV pictures using Deep Learning and Image Processing