■ oussama.zekri@ens-paris-saclay.fr

**J** +33-646238165

oussamazekri.fr

in in/oussama-zekri-41a984163/

#### **EDUCATION**

#### • ENS Paris-Saclay, Gif-sur-Yvette

Sep 2023 - Present

Master's Degree, M2 MVA, Mathematics and Applications

- Relevant coursework: Statistical learning, Computational Optimal Transport, Convex optimization and applications in machine learning, Object recognition and computer vision, Foundations of Distributed and Large Scale Computing Optimization, Deep Learning in Practice, Machine Learning for Time Series, Robotics...

#### • Ecole Polytechnique, ENS & Univ. Paris-Saclay, Palaiseau

Sep 2022 - Aug 2023

Master's Degree, Pure & Applied Mathematics.

- Relevant coursework: Functional Analysis, Advanced Probabilities, Optimization and Numerical Optimization, Mathematical Statistics, Learning and Stochastic Simulation, Image Processing and Analysis, Signal and Information Theory, Machine Learning for Time Series.
- Courses are given in collaboration with Université Paris-Saclay and Ecole Polytechnique (Master Hadamard).

## • ENS Paris-Saclay, Gif-sur-Yvette

Sep 2021 - Present

Master's Degree, Pure & Applied Mathematics.

- Enrolled in the mathematics departement (Normalien Diploma - Elève fonctionnaire) of ENS Paris-Saclay (part of Université Paris-Saclay).

#### CPGE Lycée Thiers, Marseille

Sep 2018 - Aug 2021

Bachelor of Science, Mathematics & Physics, PCSI-PSI\*

- Advanced undergraduate coursework leading to the examination for entry to top French Scientific and Engineering Schools.

### EXPERIENCE

#### System Optimization Laboratory, University of Kyoto

Apr 2023 - Jul 2023

Research intern

Kyoto, Japan

- Subject: Theory and algorithms in continuous optimization; convergence analysis under consistent error bounds and applications to image restoration.
- Supervisors: Dr. Ellen Hidemi Fukuda & Dr. Bruno Figueira Lourenço.
- A research article is currently being published.

### Lycée Louis-Le-Grand, Lycée Turgot

Sep 2022 - Present

Oral Examiner in Mathematics

Paris, France

- Oral exams "Khôlles" given to students in French "Classes Prépas".
- Institutions frequented : Lycée Louis-Le-Grand PC\*1 & Lycée Turgot PCSI.

### Centre Borelli, ENS Paris-Saclay

Mar 2022 - Jul 2022

Research Intern

Gif-sur-Yvette, France

- Subject: Similarity measures between time series inspired by optimal transport.
- Supervisors: Dr Laurent Oudre (Centre Borelli) & Thibaut Germain.

### SKILLS & LANGUAGE

### IT, Statistics & Data Science

- Proficient in Python, Latex, SQL.
- Experiences using data management (Numpy, Pandas, Seaborn...) and Machine Learning (sklearn, Pytorch, TensorFlow...) librairies.

#### Languages

- French (native), English (Cambridge CAE C1 certificate), Spanish (intermediate), Japanese (basics).

#### Projects

# • Machine learning and other projects

- Kaggle Data Challenge (NLP and Graph Learning).
- Identifying spatio-temporal similarities using tools developed during an internship, on real data from rehabilitation patients (Time series and optimal transports tools).
- Working in pairs with a doctor, applying ML techniques to the healthcare field (4D PET metabolic imaging).