Yassine BOUKHATEB

FRENCH MATHEMATICS GRADUATE STUDENT

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Education _

Institut des Mathématiques d'Orsay | Université Paris-Saclay

Orsay, France

Master of Science in Mathematics of Randomness

2024 - 2025

• Relevant courses: Concentration of Measure, High-Dimensional Probability and Statistics, Brownian Motion and Stochastic Calculus, Malliavin Calculus, Differential geometry (Auditor)

ENSAE Paris | Institut Polytechnique de Paris

Palaiseau, France

Master of Science in Applied Mathematics

2022 - 2025

- One of France's top engineering schools specializing in applied mathematics and economics.
- Relevant courses: Measure and Probability Theory, Functional Analysis, Convex Optimization, Optimal Transport, Theoretical Machine Learning, Statistics; GPA: 4.0/4.0

Lycée Louis-Le-Grand Paris, France

Advanced Undergraduate Program in Mathematics and Physics (MPSI-MP*) for French

Graduate Schools

2020 - 2022

Relevant courses: Mathematics (Algebra, Topology, Analysis), Theoretical Physics (Electromagnetism, Quantum Physics), Programming (Python and SQL); GPA: 4.0/4.0

Research Experience _____

CAIDAS Lab - Julius-Maximilians-Universität

Würzburg, Germany

Master's Thesis Internship

May 2025 - Sept 2025

- **Research Topic:** Review and advance the mathematical analysis of the UMAP (Uniform Manifold Approximation and Projection) algorithm, a nonlinear dimensionality reduction method rooted in Riemannian geometry.
- Supervised by Professors Damien Garreau (CAIDAS, JMU Würzburg) and Eddie Aamari (DMA, ENS Paris).

CREST (Center for Research in Economics and Statistics)

Palaiseau, France

Research Internship in Mathematics

Jun 2024 - Oct 2024

- **Research Topic:** Further investigation of Klartag's results on the Central Limit Theorem for convex bodies, with an emphasis on Stein's method and convex geometry techniques.
- Supervised by Professor Victor-Emmanuel Brunel (CREST).

CREST (Center for Research in Economics and Statistics)

Palaiseau, France

Research Project in Applied Mathematics

Nov 2023 – May 2024

- **Research Project:** "Inverse Optimal Transport and its Application to International Migration Flows" using MCMC methods, based on the article *Inverse Optimal Transport* written by A. Stuart and M-T. Wolfram.
- Supervised by Professors Nicolas Chopin(CREST) and Julyan Arbel (INRIA Grenoble).

Industry Experience

Clap Partners, HR Consulting Firm

Montrouge, France

Data Analyst - Mandatory Internship (Business Discovery)

Jun 2023 – Aug 2023

- Created reports using the SAP SF People Analytics Story solution.
- Monitored the creation of a connector between PowerBI and PMA (Performance Management Analytics).

Association for Sustainable and Civic Development

Montigny-en-Gohelle, France

Jun 2022 – Aug 2022

- Collaborated in the recruitment of employees for professional integration programs.
- Completed assessments, daily site reports, and various correspondences.

Skills

Technical Assistant

Languages: French (Native), English (Proficient), Spanish (Beginner)

Technical Skills: Python, R, LaTeX, Git/GitHub