Adèle DEJOIE

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Introduction

I am a graduate student at ENS Paris-Saclay, a member institution of Paris-Saclay University, where I am completing the MVA Master's program in Machine Learning and Applied Mathematics.

I am seeking a research internship starting in April/May 2026, lasting at least four months, in machine learning, focusing on research beyond standard model fine-tuning.

Education

ENS Paris-Saclay – Paris-Saclay University *Sept 2025 – Sept 2026*
Master 2 in Research, MVA: Mathematics, Vision, Learning

- One year of advanced coursework in modern machine learning and its mathematical foundations, taught by leading experts in the field.
- Most courses include an independent research project carried out in pairs or small groups, fostering autonomy, collaboration, and scientific rigor.
- **Main coursework (Semester 1):** Deep Learning, Fundamental Theory of Deep Learning, Advanced Learning for Text and Graph Data, Convex Optimization, Machine Learning for Time Series, Probabilistic Graphical Models and Deep Generative Models.

Magistère in Mathematics & ENS Rennes – University of Rennes *Sept 2023 – July 2025*

- Master 1 in Fundamental Mathematics.
- Bachelor's Degree in Fundamental Mathematics with highest honours.
- Bachelor's Degree in Computer Science.

Lycée Henri-IV, Paris *Sept 2020 – July 2023*
Scientific Preparatory Classes

- Three years of intensive post-secondary education preparing for entrance exams to France's top engineering and research schools, with advanced coursework in Mathematics, Physics, and Computer Science.

Experience

Mathematics Research Intern *Osaka, Japan*
University of Osaka *June 2025 – July 2025*

- Introduction to stochastic calculus: Itô calculus, stochastic differential equations, generators, etc.
- Study of the optimal stopping problem and its analytical formulation
- Control and optimization of stopping strategies.

Research Intern *Lille, France*
INRIA *June 2024 – July 2024*

- Developed a dataset of probabilistic problems and their corresponding solutions.
- Designed, generated, and refined Bayesian networks to create valid probabilistic problems under minimal assumptions.
- Used the generated dataset to fine-tune a BERT-based language model.

Other

Programming languages: Python and Java (advanced), C, C++, LaTeX, and SQL (proficient).

Python libraries: NumPy, Matplotlib, SymPy, PyTorch, SciPy, pandas, and the Hugging Face Transformers

Languages: French (Native), English (Fluent)

Reports

Dejoie, A. (2025). *Study of the Optimal Stopping Problem using Stochastic Calculus*, University of Osaka – Presented at ENS Rennes.

Dejoie, A. (2024). *Generation and Fine-Tuning of Probabilistic Problem Sets using Bayesian Graphs*, INRIA Lille – Presented at ENS Rennes.