

# Bastien Le Chenadec

I'm a researcher with experience in AI for mathematical reasoning and financial applications.  
I also have a strong background in software engineering and DevOps.

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## EDUCATION

- ENS Paris-Saclay — MVA Master (Mathematics, Vision, Learning)** **2023-2024**  
Specialization year (Master 2), graduated with highest honors, 12 courses validated *Paris, France*  
*Statistical learning, Learning for text and graph data, Probabilistic graphical models, Distributed and large scale optimization, Time series, Computational statistics, Reinforcement learning, Generative models for images, Deep learning for medical imaging*
- École nationale des Ponts et Chaussées — Engineering degree** **2020-2024**  
Student in the track Applied Mathematics and Computer Science (Master 1) *Paris, France*  
*Machine learning, Deep learning, Stochastic processes, Convex optimization, Operations research, Statistics*
- Lycée Chateaubriand — Preparatory classes** **2018-2020**  
Studying for the selective exams for entry to top French engineering schools *Rennes, France*  
*Mathematics, Physics, Computer science*

## PROFESSIONAL & VOLUNTEER EXPERIENCE

### J.P. Morgan

- **AI Research Associate** **February 2025 - Present**
  - Led research on synthetic data generation for mathematical reasoning, MATH-AI 2025 publication: *Tales from a Graph: a Pipeline for Mathematical Problem Generation*, Le Chenadec et al.
  - Developed and implemented a hedging model for exotic instruments leveraging deep implicit layers, implemented CUDA-compatible differentiable convex solvers
- **AI Research Scientist — intern** **April 2024 - September 2024**
  - Researched Large Language Models for mathematical reasoning tasks
  - Outstanding paper award at MATH-AI 2024 (NeurIPS workshop): *Learning Mathematical Rules with Large Language Models*, Gorceix et al.
  - Developed a symbolic algebra system for synthetic mathematical data generation in natural language
  - Developed a meta-programming framework in Lean for synthetic data generation through forward reasoning

### EDF — Électricité de France

- **Data Scientist — intern** **January 2023 - July 2023**
  - In charge of the design and implementation of a platform for anomaly detection in time series
  - Designed a benchmark of anomaly detection methods and developed novel methods
  - Developed an API exposing anomaly detection methods, integrated this API within the existing data infrastructure, developed a web interface aimed at operators to visualize and label the detected anomalies

### Theodo — M33 group

- **Software Engineer — intern** **June 2022 - December 2022**
  - Full-stack software engineer in an agile environment (*AWS Serverless / Symfony / Spring Boot — React / Angular*)
  - Developed a *back-office* for an e-commerce player: a platform to integrate new products into their database with deduplication of existing products
  - Developed a support platform aimed at business owners for an investment bank

### Student's Computer Club of École nationale des Ponts et Chaussées

- **Technical manager — volunteer** **April 2021 - June 2022**
  - Developed web applications for the school and for the students
  - Managed and maintained the servers and the cloud infrastructure, deployed the applications developed by the association
  - Repaired the computers of students, refurbished computers for the school's refugee program

## LANGUAGE & COMPUTER SKILLS

**Languages :** French (native), English (proficient)  
**Programming languages :** Python, Rust, Lean, C++, R, OCaml, TypeScript, PHP

## ACTIVITIES & CENTERS OF INTEREST

**Interests :** Formal systems, self-hosting, network security, open source development  
**Sports :** Rowing and running on a university team, swimming and rollerblading in competition, mountain biking  
**Travels :** Exchange at the *Czech Technical University of Prague - Geometrical Aspects of Spectral Theory*  
**Music :** Second cycle certificate in accordion, *Regional Conservatory of Rennes (individual and group practice for 10 years)*