



Contact

Phone

0624787118

Email

germain.vivier-ardisson@polytechnique.edu

Address

7 rue Danton, 75006 Paris

Languages

English

Level C1/C2

German

Level B2

Expertise

- Python
- C++
- Pytorch
- Scikit-Learn
- Pandas
- OpenAI Gym

Germain Vivier--Ardisson

Student at Ecole Polytechnique and Sorbonne Université

Experience

March - August 2023

Polytechnique Montréal

- **Research internship:** Counterfactual Explanations for Data-Driven Optimization Pipelines
- Explainability of models mixing **ML and Optimization** through the generation of **counterfactual explanations**
- Submission planned at ICML 2024 (first author)

June - August 2022

Quantmetry

- **Research & Development internship** in a consulting firm specializing in AI
- Benchmark and implementation of innovative algorithms at the interface between Operational Research and Artificial Intelligence

September 2023 - Present

Lycée Saint-Louis

- Oral examiner in mathematics

September 2020 - June 2021

Civil Security Instruction and Intervention Unit No. 5

- Section leader in intervention company (Ecole Polytechnique's military training)

Studies

September 2023 - June 2024

Sorbonne Université

- Master's degree in mathematics and applications: **Learning & Algorithms**
- Topics covered: Deep learning, Learning theory, Non-convex and non-smooth optimization, Stochastic algorithms, Generative models, Bayesian statistics, Approximation theory, Computer Vision, Natural Language Processing, Time Series, Reinforcement learning...

September 2020 - June 2023

Ecole Polytechnique

- Engineering school, specialized in **Applied Mathematics**
- Topics covered: Machine learning, Operations Research, Convex optimization, Monte Carlo methods, Topological data analysis, Quantum physics, Control theory, Cognitive sciences, Ecology and biodiversity...
- Commitment to promotion life: Outstanding Investment Mention

Research projects

September - December 2022

Optimization of the Sizing of an Emergency Service

- Collaboration between INRIA and Assistance Publique - Hôpitaux de Paris
- Optimization of the sizing of the emergency department at Saint-Antoine hospital through the use of Petri nets and Operational Research tools

September 2021 - June 2022

Predicting the Spread of Forest Fires

- Collaboration with the University of Corsica Pasquale Paoli and Corte Civil Security Instruction and Intervention Unit No. 5
- Machine learning for predicting wildfire spread

Extra-professional activities

Polytechnique Sound and Light Association 2021 - 2023 DJ, stage & lightning designer

- Stage design for student events
- Programming of lighting equipment
- Mix

Jazz and music production

- Jazz pianist, president of the Polytechnique jazz band (2020 - 2023)
- Computer-assisted music production, presence on Soundcloud and Spotify