



Contact

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LANGUAGES

English

Level C1/C2

German

Level B2

Expertise

- Python
- C++
- DIFFERENT
- PyTorch
- scikit-learn
- Gurobi

Germain Vivier--Ardisson

Pre-PhD intern @ CERMICS / Google DeepMind

Experience

○ April 2024 - Present

CERMICS (École des Ponts) / Google DeepMind

- Research internship supervised by Axel Parmentier and Mathieu Blondel
- Combinatorial optimization heuristics as layers for deep learning

○ March - August 2023

Polytechnique Montreal

- Research internship in Thibaut Vidal's team
- Explainability of models mixing ML and Optimization
- First authored a research paper accepted at ICML'2024.

○ June - August 2022

Quantmetry

- Research & Development internship in a consulting firm specializing in AI
- Benchmark and implementation of hybrid ML/RO algorithms

○ 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 (military training of École polytechnique)

Education

○ September 2023 - June 2024

Sorbonne Université

- Master's degree in mathematics and applications: M2 Learning & Algorithms
- Topics covered: Deep learning, Learning theory, Non-convex and non-smooth optimization, Generative models, Computer Vision, NLP, Reinforcement learning, Geometric inference, Parallel programming on GPU

○ September 2020 - June 2023

École polytechnique

- Engineering cycle, in-depth course in Applied Mathematics
- Topics covered: Operations Research, Convex Optimization, Monte Carlo Methods, Topological Data Analysis, Quantum Physics, Control Theory, Cognitive Sciences, Ecology and Biodiversity...
- Commitment to student 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

Association Sons et Lumières de l'X (Styx)

2021 - 2023 DJ, stage & lightning designer

- Stage design for student events
- Organization of the *Nuit du Styx* (>2000 people)

Jazz and music production

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