

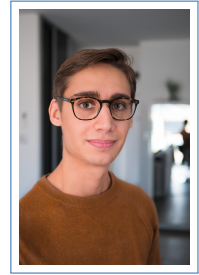
Mathieu Isoard

PhD and ML researcher

CRIION, Mertelsmann Foundation
Freiburg, Germany

+33 (6) 10 69 20 15

isoard.mathieu@gmail.com



Education

- 2024 • **Machine Learning with graphs**, Stanford University, Online
Artificial Intelligence Professional Program, completed with a score of 99.7%
- 2017 2020 **PhD**, LPTMS, Paris-Saclay University, Orsay
Theoretical study of quantum correlations and nonlinear fluctuations in quantum gases
Technical skills: Nonlinear differential equations, numerical methods, data processing
- 2013 2017 **Bachelor's and Master's degrees**, École Normale Supérieure Paris-Saclay, École Normale Supérieure Ulm, Paris
- 2013 • **Admitted at École Normale Supérieure Paris-Saclay**

Experience

- 2025 • **ML researcher in cancer research**, Mertelsmann Foundation, CRIION, Freiburg, Germany
cell images datasets alignment and images classification
Technical skills: Machine and deep learning, data visualization, cell images classification, medical data
- 2022 2024 **CNRS post-doctoral researcher in quantum computing and applied maths**, LKB, Paris-Sorbonne University, Paris,
Technical skills: Machine and deep learning, statistical data analysis, Fisher information and probability distributions, genetic algorithms
- 2020 2022 **Post-doctoral researcher in quantum communication**, Albert-Ludwigs-Universität, Freiburg, Germany,
Technical skills: numerical simulations, statistical data analysis, applied maths

Skills

- General skills Machine and deep learning, data analysis, conduct research and projects from A to Z, ability to solve difficult (analytical and numerical) problems, communication skills, management and supervision, adaptability and ability to learn fast, curiosity
- Programming C++, Python (scikit-learn, tensorflow, PyTorch, PyTorch geometrics), mathematica, Word, Excel

Languages

French: native

Mother Tongue

English: fluent

Daily practice, all work performed in English

German, Italian: bases

B1 level – in progress

Communication

2016

More than 20 presentation in various workshops throughout the world

2018

Numerous publications in journals with peer-reviews

1 recent publication in deep learning in the prestigious journal *Physical Review Letters*: Correlation-pattern-based Continuous-variable Entanglement Detection through Neural Networks, Xiaoting Gao, Mathieu Isoard, et al., PRL **132**, 220202 (2024)

Google Scholar link: <https://scholar.google.com/citations?user=8bsIOgoAAAAJ&hl=fr&oi=ao>

Teaching and supervision

2021

Supervision, *Albert-Ludwigs-Universität, Paris-Sorbonne University*

2 students in Bachelor's degree, one student in Master, 2 students in PhD

2017

2024

Teaching, *Paris-Saclay University, Albert-Ludwigs-Universität, Paris-Sorbonne University, École Normale Supérieure Ulm*

Bachelor's and Master's degrees

Other activities

2021

2022

Organization of weekly seminars, *Quantum Optics and Statistics*, *Albert-Ludwigs-Universität, Freiburg, Germany*

2017

2020

PhD Club, *LPTMS*

Organizer, together with Nina Javerzat

2017

2020

PhD representative, *LPTMS*

2021

Workshop organization: Analogue Gravity symposium, *Rennes, France*

Organizer together with Maxime Jacquet et Theo Torres

Interests

Sport Weightlifting, running

Hobby Reading, theater, museum, AI technologies