

Mickael GAULT

Phd student at IFP Energies Nouvelles and Inria MALICE team,
Laboratoire Hubert Curien, Université Jean Monnet

Birth: 03/06/2002

Nationality: French

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Website: <https://mlgb.fr>

GitHub: <https://github.com/ml-g-b>

Education

Inria MALICE team & IFP Énergies Nouvelles

2025 - 2028

PhD in Computer Science

Subject: Development and evaluation of physics-informed machine learning approaches for CO₂ capture modeling

Jean-Monnet University, Saint-Etienne

2023 - 2025

International Master in Computer Science, Machine Learning & Data Mining

15.8/20

Jean-Monnet University, Saint-Etienne

2020 - 2023

Bachelor in Computer Science

14/20

Université du Québec à Chicoutimi, Chicoutimi, Quebec, CANADA

sep. - dec. 2022

5th semester exchange

Research Internships

Inria MALICE team & IFP Énergies Nouvelles

February 2025 - July 2025

Internship of 2nd year of the master - M. SEBBAN, R. EMONET, P. BACHAUD, B. CELSE

Subject: Physics-informed Machine Learning: Application to CO₂ capture modeling

Skills: Physic-Informed ML, hybrid (data/theory)-models, Sparse learning

Laboratoire Hubert-Curien - Data Intelligence team

April 2024 - July 2024

Internship of 1st year of the master - E. MORVANT, G. METZLER (ERIC Lab)

Grade: 16/20

Subject: Learning fair kernel classifier under constraints

Skills: PAC-Bayes, domain adaptation, fairness, generalization bounds

Skills

Technical skills

python, scikit-learn, pytorch, tensorflow, C, C++, java, javascript, html, css, php, docker, django, assembly x86_64, R, ocaml, bash, shell, prolog, LaTeX, mysql

Scientific skills

Machine Learning, deep learning, data analysis, linear algebra, optimization, computer vision, statistical learning, data mining, generalization bounds, domain adaptation, kernel learning, PAC-Bayes, fairness

Languages: French (Native speaker), English (C1 TOEIC), German (B1+ level)

Publications

Gault, Mickael, Pierre Bachaud, Benoit Celse, Remi Emonet, and Marc Sebban (2025). “Physics-Informed Machine Learning for Modeling CO2 Capture from Scarce Data”. In: *Proceedings of the 37th IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*.

Volunteering

Scouts et Guides de France

2019 - now

Territoire Les Deux Loire

- Training referent for Loire and Haute-Loire
- Youth Council referent for Loire and Haute-Loire
- Pedagogical accompanist - Responsible for supporting adults in the movement in their mission for the french departments of Loire and Haute-Loire
- Association representative - Representative of the Territory at the General Assembly of the *Scouts et Guides de France*

Souvenir Français

2024 - now

Comité de Montbrison

- Vice President
- Flag bearer