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Summary

I'm a PhD student at University of Liège working on the use of Deep Learning for Sciences. I mainly work with generative models, especially diffusion models for posterior inference tasks. I'm part of the SAIL team under the supervision of Gilles Louppe.

Education

2023 - present **PhD in Deep Learning for Sciences @Uliège**
F.R.S.-FNRS Research Fellow
Under the supervision of Pr. Gilles Louppe
Working title: Overcoming model misspecification with deep learning

2021 - 2023 **MSc. in Electrical Engineering @Uliège**
Focus : Signal processing and intelligent robotics
Graduated magna cum laude (87%)
Thesis title: Data assimilation as Simulation-based Inference

2018 - 2021 **BSc. in Electronics and Computer Engineering @Uliège**
Graduated magna cum laude (79%)

Experience

2024-present **Teaching assistant @Uliège**
Supervising practical sessions of INFO8006 course.
Instructor: Pr. Gilles Louppe

Summer 2022 **Student intern @Haulogy**
Under the supervision of Dr. Antonio Sutera
Subject: Time series forecasting using Machine/Deep Learning techniques

2019 - 2023 **Student Instructor @Uliège**

I gave (11 mandates) various working sessions in computer sciences, electrical engineering and basic engineering courses. I also worked as a tutor in the SI-PASS program of the faculty.

Publications

Complete list can be found on my scholar page.

Appa: Bending weather dynamics with latent diffusion models for global data assimilation

Andry, Lewin, Rozet, Rochman, Mangeleer, Pirlet, Faulx, Grégoire and Louppe

We published our first version of the project in April 2025 as a preprint on arXiv. This first version was presented at a workshop for the ECMWF's 50th anniversary. An improved version was accepted at ML4PS 2025 NeurIPS workshop.

Learning diffusion priors from observations by expectation maximization

Rozet, Andry, Lanusse, and Louppe

Paper published in Advances in Neural Information Processing Systems (2024).