

Thomas Gaviard

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EDUCATION

University of Lille

Lille, France

MSc in Data Science, Research Track

Sep 2022 – Apr 2024

- Relevant coursework: Linear Algebra, Probability, Statistics, Convex Optimization, Signal Processing, High Performance Computing, Machine Learning, Deep Learning, NLP, Computer Vision, Reinforcement Learning, Databases, Bayesian Learning
- All courses are taught in english ; 6 month research project

Centrale Lille

Lille, France

MEng in General Engineering

Sep 2019 – Aug 2022

- Relevant coursework: Math, Physics, Computer Science, Project Management
- Gap year followed by a double degree in the Master of Data Science of the Univeristy of Lille

Lycée Louis-Le-Grand

Paris, France

Preparatory classes, Mathematics, Physics and Chemistry

Sep 2016 – Jul 2019

RESEARCH EXPERIENCE

IMT Lille-Douai, Murdoch Univeristy

Lille, France

Second year research project, Computer Vision

Oct 2023 – Mar 2024

- “Multi-scale novel view synthesis of bounded scenes”, supervised by Hamid Laga and Hazem Wannous.
- Study of state-of-the-art neural radial fields (NeRFs) methods and adapt them to the subject constraints.

INRIA - RAPSODI team

Lille, France

First year research project, Optimization and Numerical Analysis

Oct 2022 – Apr 2023

- “Numerical study of dynamical models of interacting Voronoi cells and their continuous limits”, supervised by Claire Chainais and Andrea Natale.
- Spatial decomposition of the domain and resolution of an ODE whose potential energy is in itself a convexe optimization problem.

INRIA - MAGNET team

Lille, France

Internship, Machine Learning

Mar 2022 – Aug 2022

- “Fairness in Federated Learning”, supervised by Michael Perrot.
- Produced an in-depth taxonomy of the existing federated and fair algorithms.
- Proposed and implemented a novel approach based on a weighting gradients scheme.

WORK EXPERIENCE

Stereolabs

Paris, France

Internship, Deep Learning Engineer

Apr 2023 – Aug 2023

- Studied neural stereo matching at different levels (architecture, optimization, data).
- Contributed to their technology watch, read more than 30 papers.
- Improved the overall performance based on empirical results and knowledges.

Euratechnologies

Lille, France

Internship, Data Scientist

Sep 2021 – Feb 2022

- **Project 1:** Bots detection in a MMO video game (Event2Vec and Attention-based LSTM).
- **Project 2:** Detection of defects on railway rails (YOLO architecture).
- **Project 3:** Multivariate and multi-steps sales forecasting (LSTM).

Helean

Paris, France

Internship, Data Scientist

Jul 2021 – Aug 2021

- Improved their forecasting model using features engineering and enriched their data with web scraping.

SKILLS

Programming: Python, SQL, R, L^AT_EX, MPI, CUDA kernels
Languages: French (Native), English (Professional), Spanish (Intermediate)

HOBBIES

Rugby (15y), Running (MAS 18km/h), Music (cello, electronic), Games