

Thomas Gaviard

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EDUCATION

University of Lille

Lille, France

MSc in Data Science, Research Track

Sep 2022 – Apr 2024

- Relevant coursework: Math 1-2-3-4, Proba 1-2, Stats 1-2, ML 1-2-3-4, Deep Learning, AC 1-2
- All courses are taught in english ; 6 months long 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

INRIA - RAPSODI team

Lille, France

First year master thesis, 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

Euratechnologies

Lille, France

Internship, Data Scientist

Sep 2021 – Feb 2022

- 3 projects of 2 months in companies, supervised by professors of Centrale Lille.
- **Project 1:** Detection of bots in a multiplayer online video game via their behaviour. Processed a big amount of data (50 Go). Implemented a framework from a research paper based on Event2Vec and Attention-based LSTM.
- **Project 2:** Detection of defects on railway rails. Fine-tuned the object detection model Yolov5 and studied expert systems.
- **Project 3:** Multivariate and multi-steps sales forecasting. Carried on exploratory statistics and implemented a LSTM-based methods. Presented the results on a web interface and deployed a pipeline on Google Cloud Platform.

Helean

Paris, France

Internship, Data Scientist

Jul 2021 – Aug 2021

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

SKILLS

Programming: Python, PostgreSQL, Matlab, R, L^AT_EX

Libraries: numpy, pandas, matplotlib, scikit-learn, pytorch, tensorflow, cython, unit-testing

Technologies: Git, GCP BigQuery, AWS Redshift

Languages: French (Native), English (Professional), Spanish (Intermediate)

HOBBIES

Rugby, Music, Poker