# Theo DI PIAZZA

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#### **EDUCATION**

## **Ecole normale supérieure Paris-Saclay**

Paris, France

Master of Science (MSc) - MVA (Mathématiques, Vision, Apprentissage)

2022-2023

- Convex optimization Deep Learning for signal processing Reinforcement Learning Object recognition and Computer Vision Responsible Machine Learning
- Machine Learning for Time Series Graphs for Machine Learning Advanced Deep Learning Deep Learning for medical imaging

INSA Rennes Rennes, France

• Master of Science (MSc) - Applied Mathematics Department - Engineering degree

2017-2022

- o Data: Machine Learning Supervised / Unsupervised Learning Regression Classification Risk and Scoring Time Series Multivariate Analysis Inferential Statistics
- o Optimization: Operational Research Branch & Bound/Price
- o Applied Mathematics: Stochastic Dynamical System Model Markov Chains Hilbertian Tools PDE

## Instituto Superior Técnico Lisboa

Lisbon, Portugal

Master of Science (MSc, International Exchange Program) - Applied Mathematics

2021-2022

Deep Learning (Natural Language Processing & Computer Vision) - Data Mining - Clustering Methods

## **PROFESSIONAL EXPERIENCE**

## Philips, Hospices Civil de Lyon, University of Lyon.

Lyon, France

PhD Student

January 2024 - January 2027

- o Deep learning algorithms for report generation and multi-label anomaly classification from 3D CT Scans.
- o Papers accepted for publication at SPIE 2025, ISBI 2025 and MIDL 2025 as oral presentations.

## Thales, Centre Borelli. Under the supervision of Pr. Gabriele Facciolo

Paris, France

• Al Research Intern

- April 2023 September 2023
- o Deep learning & Computer Vision algorithms for vision-based drone localisation.
- o Paper accepted for publication at IGARSS 2024 as oral presentation.

## Centre Léon Bérard. Under the supervision of Dr. Loic Verlingue

Lyon, France

Al Research Intern

- March 2022 August 2022
- Development, testing and interpretation of NLP algorithms for monitoring of patients in oncology.
- o Paper under review for Nature Partner Journals on Precision Oncology.

Hupi Bidart, France

Consultant Data Scientist Intern

- May 2021 August 2021
- o Development and deployment of a machine failure prediction model for a Spanish industrial group.
- o Analysis of data on the follow-up of dependent persons and prediction of their date of institutionalization.

## **PROJECTS**

- Deep Learning Projects [Academic projects]
  - Computer vision: bird classification by transfer learning, radiation dose prediction for cancer patients,
    self-supervised learning for image classification
  - Signal: voice/noise source separation for voice enhancement

## **PUBLICATIONS**

- Imitating Radiological Scrolling: A Global-Local Attention Model for 3D Chest CT Volumes Multi-Label Anomaly Classification. Accepted for publication at MIDL 2025, oral presentation. [ArXiv]
- CT-AGRG: Automated Abnormality-Guided Report Generation from 3D Chest CT Volumes. Accepted for publication at ISBI 2025, oral presentation. [ArXiv]
- Leveraging Edge Detection and Neural Networks for better UAV Localization. Accepted for publication at IGARSS 2024, oral presentation. [ArXiv] [code]
- An Explainable Language Model Predicts Survival from Medical Reports in Oncology. Under review for NPJ Precision Oncology. [Preprint] [code]