






# Yassine Machta

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 [GitHub](#)  [LinkedIn](#)  [machtayassine@gmail.com](mailto:machtayassine@gmail.com)  [Personal page](#)

 **Interests** (for details, click [here](#))

Currently working towards a PhD. Looking for a 3-month internship for this Summer (July-September) in Paris or Tunis.

## Education

**ENSAE Paris** 2021-2025  
*Engineering Curriculum: Data Science, Statistics and Learning. GPA: 3.8* *Planning to pursue research*  
**Lycée Pierre de Fermat** 2019-2021  
*Undergraduate intensive course in advanced Maths and Physics*

## Work Experience

**Research Intern** | [Sony R&D](#) | NeRFs Stuttgart, January 2024 - June 2024

- Conducting studies to understand and benchmark the impact of uncontrolled environments and the properties of images on 3D reconstruction out of 2D images.
- Created a fully automatic pipeline from image preprocessing, to 3D object reconstruction, and automatic mesh treatment for evaluation purposes.

**Supervised by** [Facijs, Z](#) and [Francheschi, R](#)

**Research Intern** | [Inria - SIMBIOTX](#) | *Pytorch, 3D, Image processing, Segmentation* Paris, May 2023 - November 2023

- Implemented and benchmarked the impact of Topology preserving losses on improving accurate 3D liver vessel segmentation and connectedness.
- Developed an image processing algorithm to transform single label vessel datasets into two-label datasets separating the portal and hepatic trees.
- Conducted a comprehensive statistical analysis of the morphometry of the obtained vessel trees while training a network to recognize perfusion volumes of the vessels. Wrote and submitted my first paper to MICCAI 2024.

**Supervised by** [Ali, O](#) and [Vignon-Clementel, I.](#)

**Data Science Intern** | [Cour Des Comptes](#) | *R, Sphinx* Paris, June 2022 - September 2022

- Designed and distributed a survey using Sphinx to assess public sentiment towards Paris' RER system and satisfaction with the metrics used by transporters.
- Conducted comprehensive data analysis on R, utilizing cartography and descriptive statistics techniques to create an overview of the French Airport Network.

**Supervised by** [Grignon, P](#)

## Skills

**Programming:** Python (PyTorch, Scikit learn/image, Selenium, pandas, Numpy, matplotlib), Git, Slurm, Linux. learning C ++, Godot and a bit of JS/CSS

## Projects

- Paper reimplementing "Unsupervised Multi Modal Translation". Recipe generator and supermarket recommender according to fridge inventory, spatial proximity to supermarkets and diet, Time series forecasting, Monte Carlo simulations of the Lotka-Volterra model.
- Swarm intelligence search and rescue competition to experiment with multi agent reinforcement learning and trying to apply it to a personal game development project

## Clubs

ENSAE English Debating Team | 2022-2023  
[Winners](#) of the 2023 Grandes Ecoles [FDA](#) Tournament

**IP Paris Racing Team** | 2023-present

I joined the **Driverless** team to deepen my skills in computer vision and model deployment.

## Languages

- Arabic** (Native)
- French** (Native)
- English** (C1)
- Spanish** (A2)