






# Yassine Machta

Last built on March 25, 2024.  
Underlined text indicates clickable links  
For latest version click [here](#)

 [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

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

## Work Experience

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

- Created a fully automatic pipeline from image preprocessing, to 3D object reconstruction 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. Currently investigating additional methods
- 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. Currently writing my first paper.

**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, Sickit, Selenium, pandas, Numpy, matplotlib), Git, Slurm, Linux. learning C++ , Godot and a bit of JS/CSS

## Projects

- Paper reimplementatation 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.
- Currently involved in a Swarm intelligence search an 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)