






Yassine Machta

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 **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 a 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. 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. 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, 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)