



PIERRE CAVALIER

STUDENT IN MASTER 2 MATHEMATICS AND AI
AT PARIS-SACLAY UNIVERSITY

24 YEARS OLD

PERSONAL PROFILE

I'm passionate about science and new technologies, especially AI and its applications. In my spare time, I do weight training, bouldering, and play online games as part of a team.

ACADEMIC BACKGROUND

- **Master 1 and 2 in Mathematics and Artificial Intelligence** at **Paris-Saclay University** since 2022, in partnership with the CentraleSupélec engineering school, and the Data Science computer science master's program.
- 1st year of **CentraleSupélec's** engineering program from 2021 to 2022.
- **Double Bachelor's Degree in Mathematics and Physics** with highest honors obtained at the University of Paris-Saclay from 2018 to 2021.

CONTACT

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SKILLS

- **Supervised training** such as Linear Regression, Random Forest, SVM, Neural Network (MLP, CNN, RNN ...)
- **Unsupervised training** such as PCA, Non-linear PCA, MCA, MDS, t-SNE ...
- Theoretical and practical mastery of **machine learning** concepts.
- Fundamental and applied **physics** (e.g. **modeling**).
- Able to work **independently** while **collaborating** effectively as part of a team.
- Programming skills: **Python**, R, SQL, C++, Spark, Hadoop, LaTeX.

EXPERIENCES

Research assistant at CNRS

INTERSHIP BETWEEN APRIL AND JULY 2023

- Internship on **Fink** at **IJCLab**, an interface between telescope and user to facilitate the use and management of data.
- Creation of a **similarity system** between two **celestial bodies**, based on AI, in order to create a graph and observe trends.
- Work on identifying **anomalies** in celestial bodies using graphs.

Research assistant at ESPCI-PSL

INTERSHIP IN JUNE AND JULY 2021

- Graduation internship at the **Gulliver** laboratory, **modeling** modeling robot behavior (kilobot).
- **Computer simulation** (in Python) and creation of a model to predict robot behavior.
- Set up robots and an arena to observe the tendency of robots to oscillate against walls.