# Identify your favorite pet

## Objective :

Check if a picture contains my favorite pet or not.

## Mission statement :

- Create / select your own dataset.
- Define what is your favorite pet.
- Define your classification strategy.
- Compare a custom made model with a pretrained model.

## Suggested Dataset :

- NA

## Ressources:

- Sklearn documentation:
  - Recognizing hand-written digits
  - Novelty and Outlier Detection
  - One Class SVM
- TensorFlow documentation:
  - Transfer learning with TensorFlow Hub
- Blogs:
  - Kapernikov: image classification with sci-kit learn
  - Paper with code: Best classification models on common datasets
  - Hugging Face: what is image classification ?
- Notebooks:
  - One Class Classification for Images

- Youtube videos:
    - …

## Livrables :

- **A notebook** (html or ipynb) :
    - EDA
    - Modelization
    - Performances
- **BONUS:**
    - Script or notebook : take an image path as input and return a boolean indicating the presence or absence of your favorite pet.

# Evaluation criterias (120 / 100 pts) :

| Skill | Description | Points |
|---|---|---|
| **Documentation (markdown)** | • Using at least 3 different resources (kaggle notebooks, blogs, youtube videos or else…), explain your strategy and why you think this is going to work.<br>• Your code is commented when needed.<br>• The model and hyperparameters selection is explained.<br>• The performances are commented on.<br>• Bibliographical references are present. | 50 |
| **Code (python)** | • All blocks necessary to implement your strategy are present.<br>• Specialized libraries have been used.<br>• All notebook cells have been executed successfully sequentially. | 30 |
| **Performances** | • A baseline is defined.<br>• All necessary comparisons are done.<br>• Figures are readable and legends are present.<br>• A proper evaluation metric was selected. | 20 |
| **Application (bonus)** | • The script is functional.<br>• The script respects the required parameters. | 10 |