

Basic to Complex Image Classification

Objective :

Classify pictures of:

- handwritten digits
- Dog breeds

Mission statement :

- Describe the dataset (format, size, target).
- Create a classification strategy.
- Compare your strategies on both datasets.

Suggested Dataset :

- [Kaggle digit reco.](#)
- [Kaggle dog breeds](#)

Livrables :

- **A notebook** (html, ipynb or link toward a github / google colab)
- **BONUS:**
 - Complete one of the following Codingame puzzle:
 - flip the sign
 - Reverse minesweeper
 - sudoku validator
 - lumen
 - pirate's treasure
 - forest fire
 - battleship

Evaluation criterias (110 / 100 pts) :

Skill	Description	Points
Documentation	<ul style="list-style-type: none">• Titles are present• Comments on what is done on each part are present• Results are commented	20
Modelization	<ul style="list-style-type: none">• Several models should be tested:<ul style="list-style-type: none">◦ At least one linear and one non-linear◦ One of them should be a CNN• A working pipeline is used for training and saved.	20
Performances	<ul style="list-style-type: none">• A baseline is defined.• All necessary comparisons are done.• Figures are readable and legends are present.• The number of points for this criteria is weighted by your model performances.	60
Bonus	<ul style="list-style-type: none">• A screenshot of your Codingame success	10