Tuesday, 20/10/20.

* What did we learn?

We learnt for supervised AI to follow the steps:

1) creating the dataset, 2) training AI, 3) interacting and talking to the AI

* Libraries we used

**Tensorflow** - free and open-source software library for dataflow and differentiable programming across a range of tasks. It is a symbolic math library, and is also used for machine learning applications such as neural networks

**Numpy** - NumPy is a python library used for working with arrays. It stands for Numerical Python.

It also has functions for working in domain of linear algebra, fourier transform, and matrices. It's an open source project and you can use it freely.

In Python we have lists that serve the purpose of arrays, but they are slow to process.

NumPy aims to provide an array object that is up to 50x faster that traditional Python lists.

**Imageai** - python library to build applications and systems with self-contained Deep Learning and Computer Vision capabilities using simple and few lines of code.

**OpenCV-** Open Computer Vision Library is a library of programming functions mainly aimed at real-time computer vision. The library is cross-platform and free for use under the open-source BSD license.

....all run through pip (the package manager for Python packages, or modules)

* What can our image AI do? And how accurate is it? Why is this accuracy?

Our image AI can tell us which is the probability of belonging to one idea or another. The accuracy will depend on the diversity of examples for the same thing and the more different cases belonging to a same concept will enrich the pool and make the prediction more precise.

* Explain the training and testing images. What 3 folders did you have?

Once I set 30 different images, in 3 different folders ( 10 in each) we could make the AI predict if one of the images belong more to one folder or the others, depending on the way it looked like by the AI. This is, each folder, represent a category and any image of these 3 folders was tested by the AI to see if the prediction was identified mostly with a particular folder/category or the others. The 100 % accuracy was divided between the different possibilities of the created folders. In my case, these were "birds", "shoes" and "houses".

* Application of this AI image in real life

In real life AI image is used to recognize concepts and objects as an automatic tool. In health, comparing images can help to predict diagnosis. In devices security, it can help identifying users, people. In social media, when AI images predict links between people through photos.