Tercer entregable

* 1. What is the task?
     + Convert a picture of a horse intoa zebra to a photo-realistic image.
  2. Which pre-trained model are you using and why?
     + We are using CycleGAN but with the pix2pix implementation in pytorch, so it is a combination of both. We are using this model in order to achieve a more precise outcome and because it was a very interesting use case, because who hasn’t noticed the similarities between a zebra and a horse and the result of the transformation is really interesting, who can say that we can do change of hair color for cats and dogs, maybe even human. It coulb be to our advantage to see photorealistic changes like hair or skin color.
  3. In general terms, explain the neural network architecture of the pre-trained model you used.
* This network contains two stride-2 convolutions, several residual blocks, and two fractionally strided convolutions with stride ½.
* We use 6 blocks for 128 × 128 images and 9 blocks for 256 × 256 and higher resolution training images.
* We use instance normalization. For the discriminator networks we use 70 × 70 PatchGANs [22, 30, 29], which aim to classify whether 70 × 70 overlapping image patches are real or fake. Such a patch-level discriminator architecture has fewer parameters than a full-image discriminator and can work on arbitrarily-sized images in a convolutional way.
* The model is here: https://github.com/junyanz/pytorch-CycleGAN-and-pix2pix/blob/master/models/networks.py
  1. Model pipeline diagram.

A screenshot of a cell phone

Description automatically generated