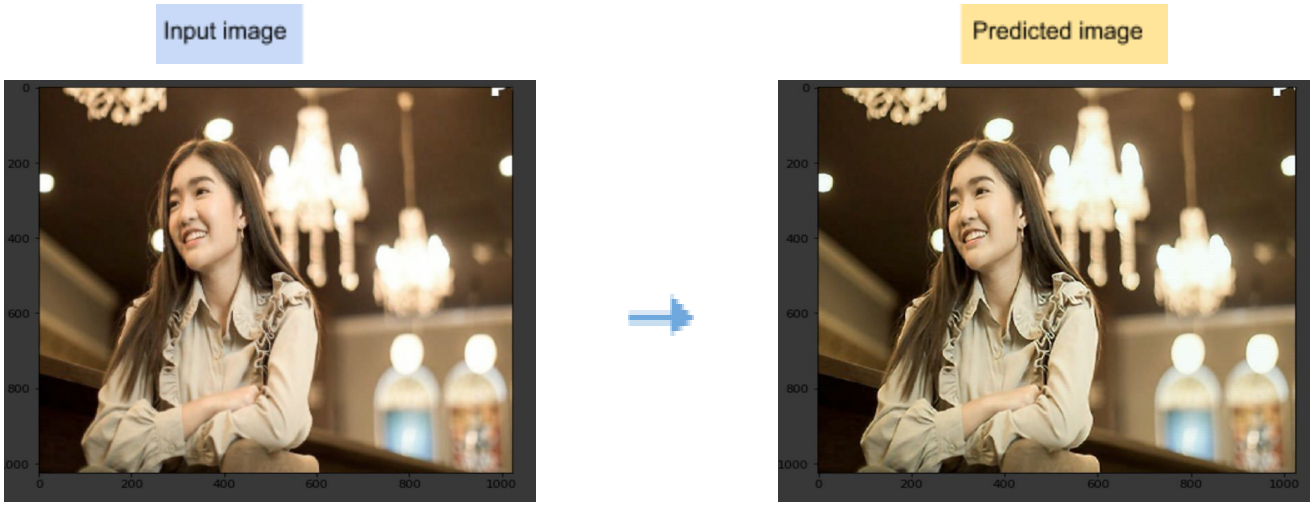
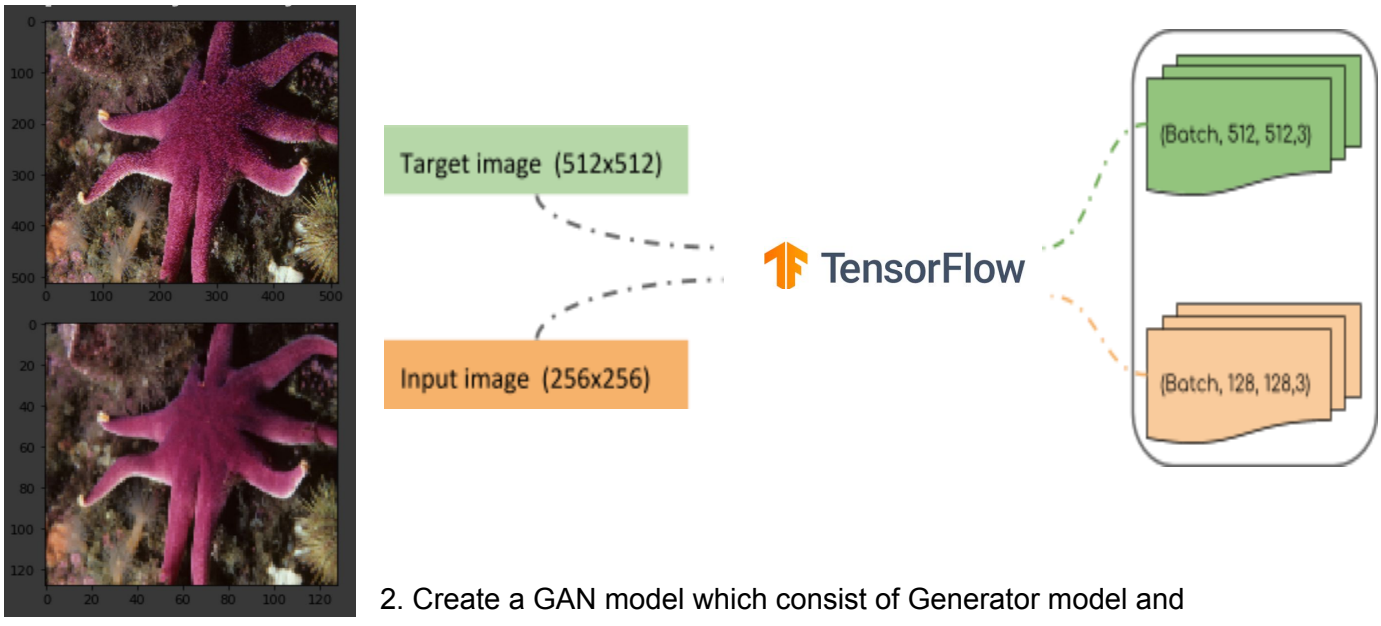
Project Name: “GAN improving Image quality”

Purpost (Effect) of Project Goal

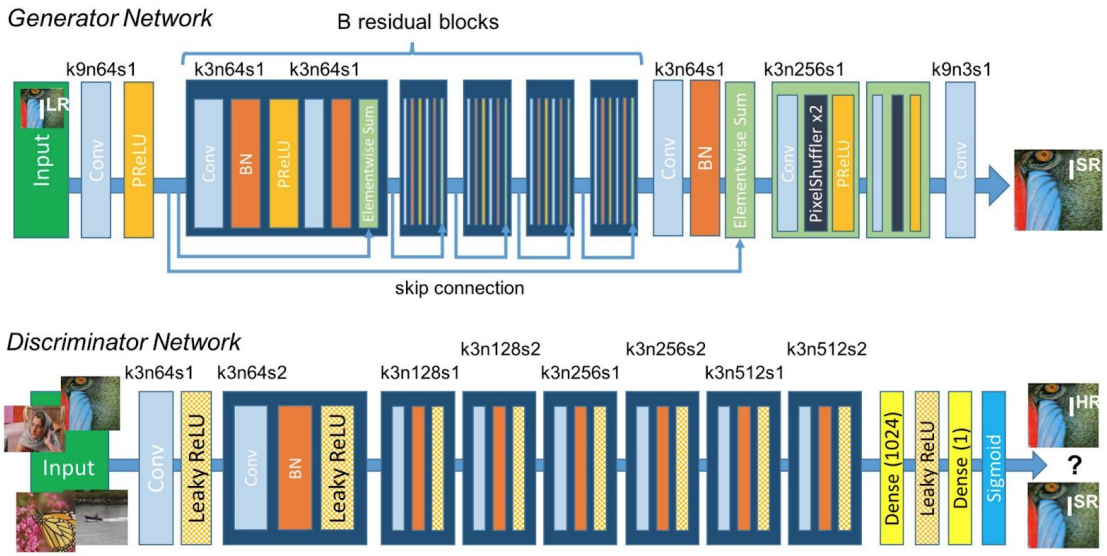
Predicting a high quality image from low quality image using a Generative Adversarial Network using Tensorflow 2.0



1 . Preparing dataset, download a pair of low resolution and high resolution image dataset from https://data.vision.ee.ethz.ch/cvl/DIV2K/ low resolution is downsampling of high resolution image using x2 bicubic method. Use Tensorflow dataset API to make a dataset in a tensor format -> (batch_size ,128, 128, 3), (batch_size, 512, 512)

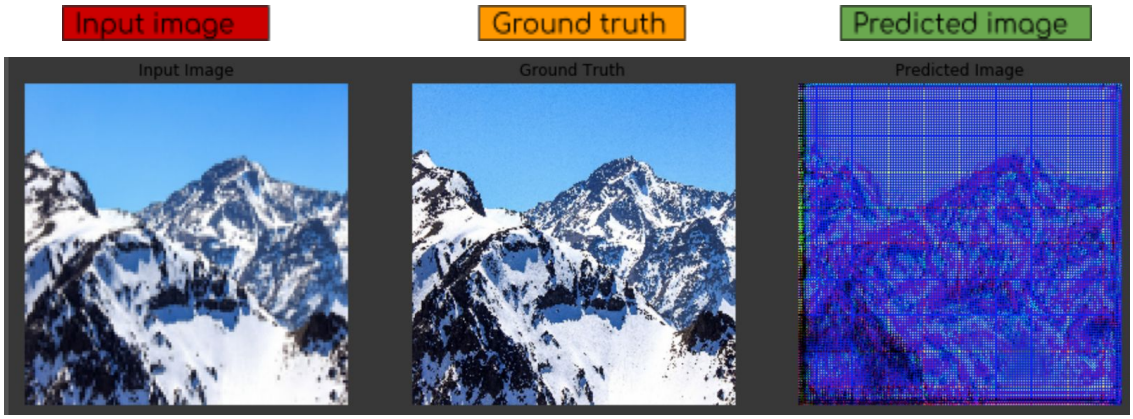


2. Create a GAN model which consist of Generator model and Discriminator model , customize model from paper https://arxiv.org/pdf/1609.04802.pdf

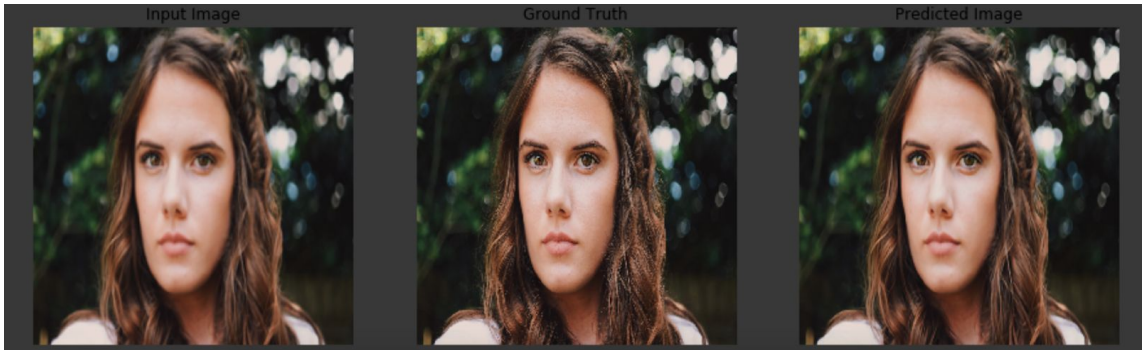


3. Training using GPU accelerator for 20 epoch / 1000 image per 1 epoch.

1 Epoch

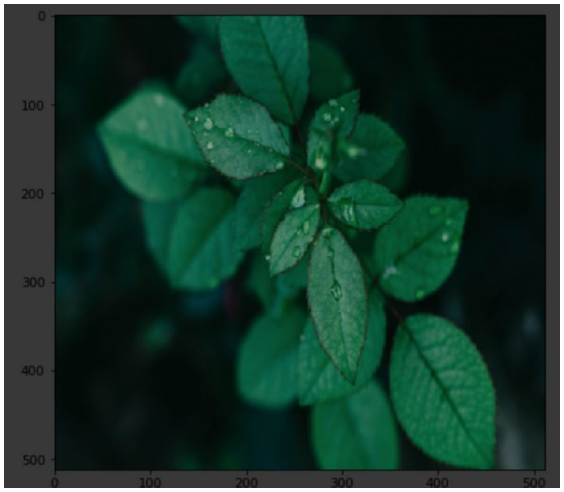


10 Epoch



4. After training process ended, try to predict a image.

Input image



Predicted image