

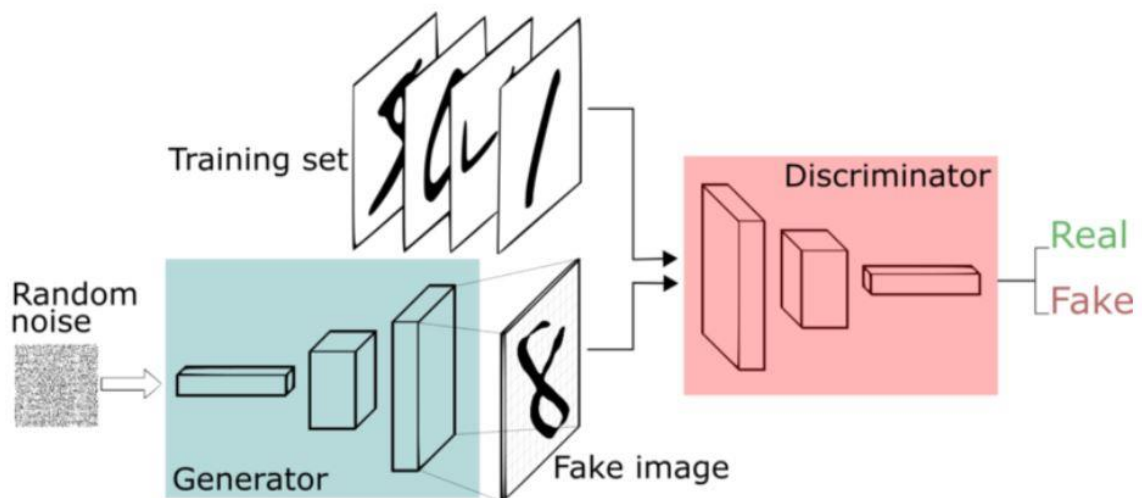
Cat GAN.

Sila, Nov. 2021.

Simple Generative adversarial network (GAN) that can generate cat doodles.

Locate the cats.npy on Kaggle, and upload it to your Google drive. Then you should be good to go.

Generative Adversarial Networks



Generative Adversarial Network framework.

See the introduction to GANs on Google

<https://developers.google.com/machine-learning/gan>

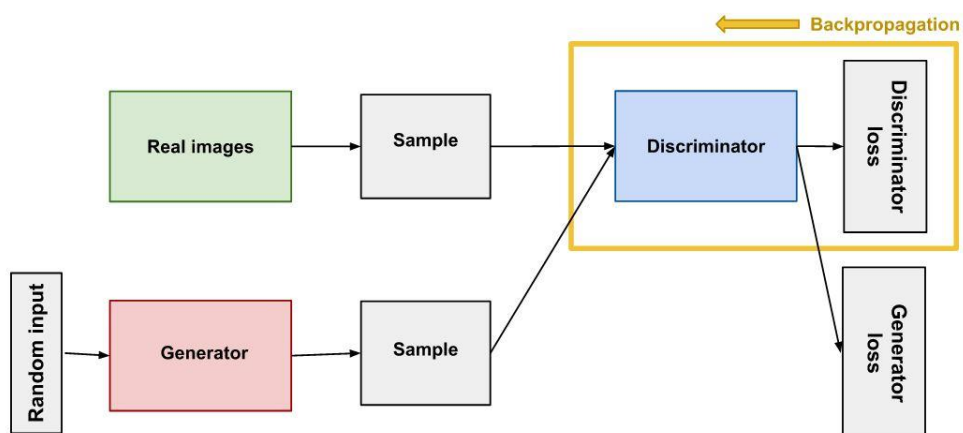


Figure 1: Backpropagation in discriminator training.

Training of discriminator.

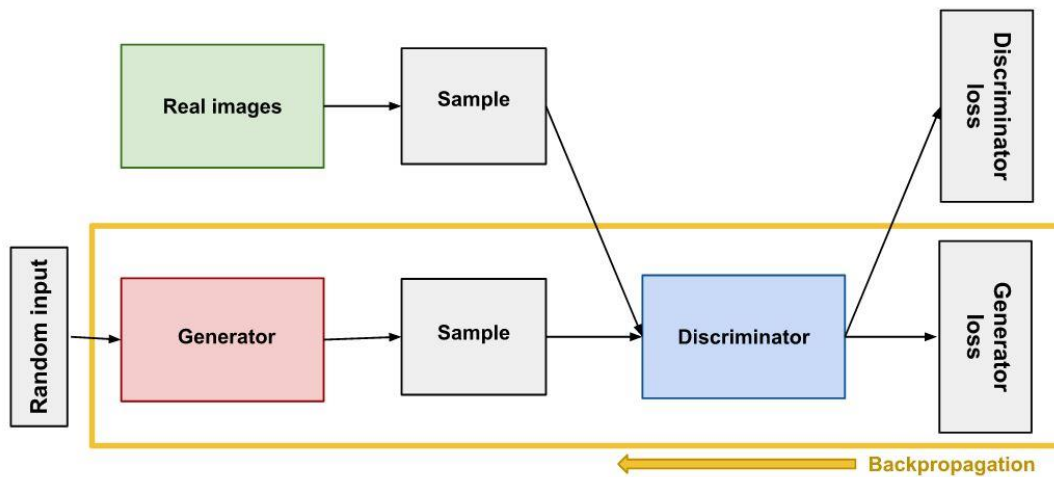
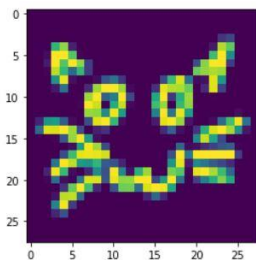


Figure 1: Backpropagation in generator training.

Training of generator.

<https://developers.google.com/machine-learning/gan/generator>

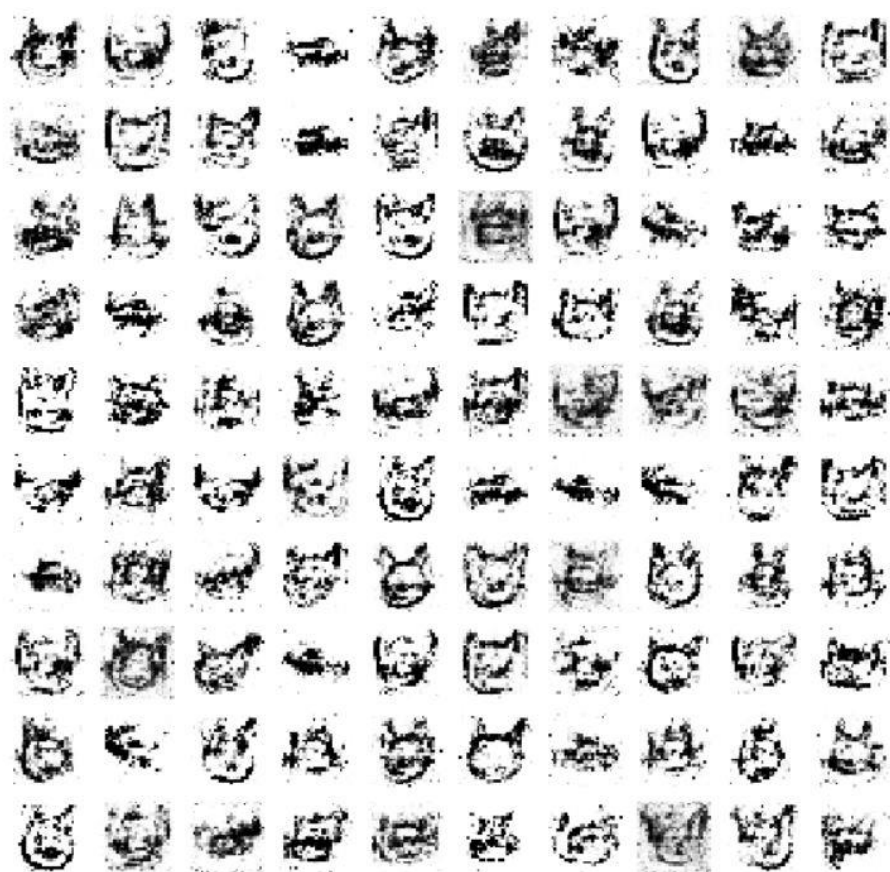


Load the cats, cats.npy, and begin training!

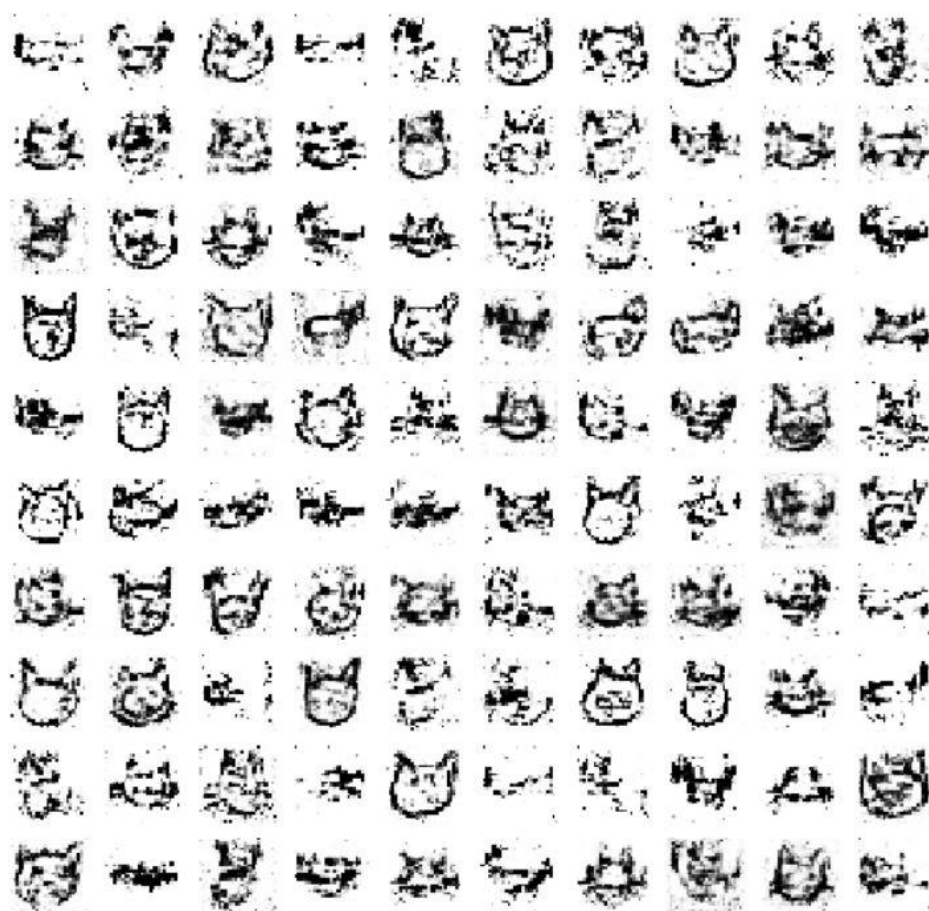


Samples from G - Epoch = 1





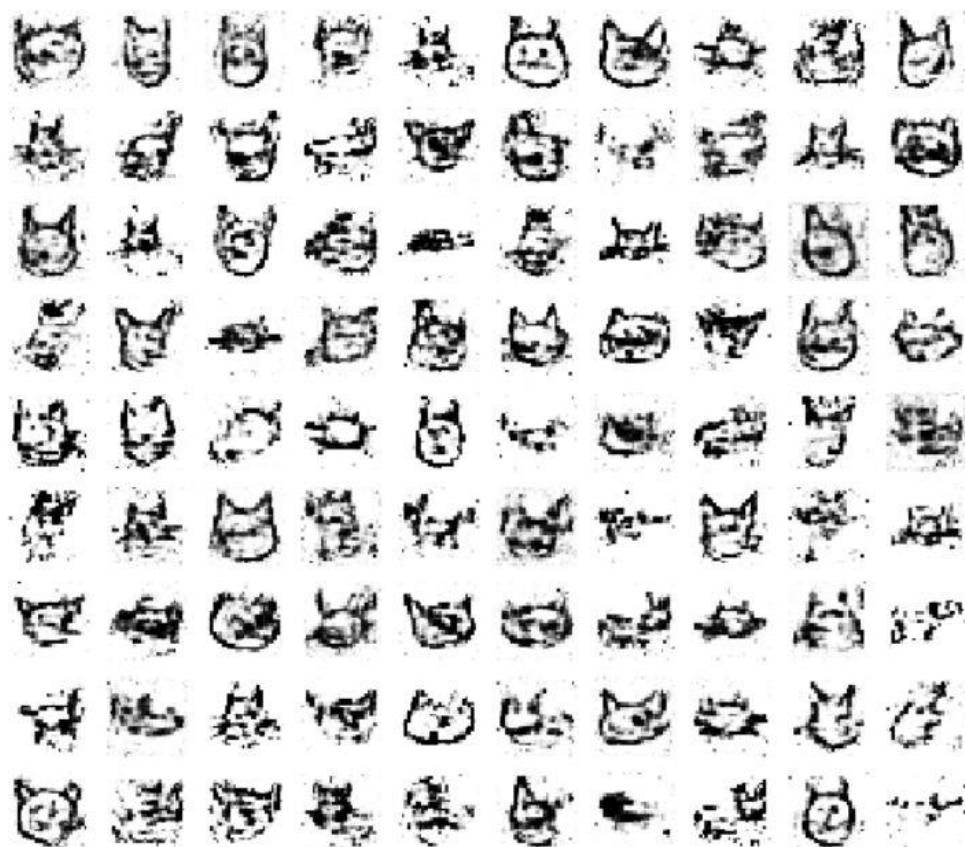
Samples from G - Epoch = 14



Samples from G - Epoch = 22



Samples from G - Epoch = 27



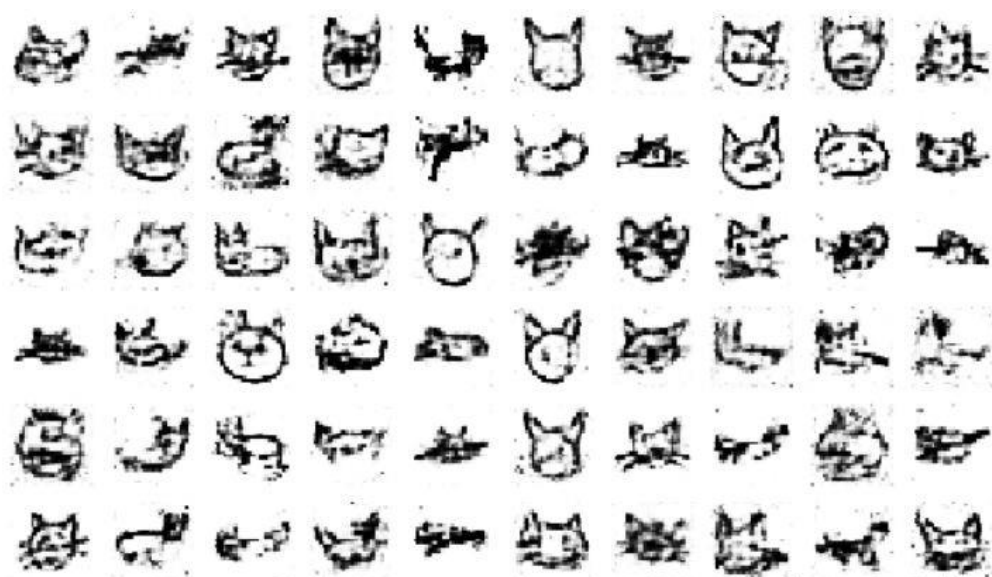
Samples from G - Epoch = 48



Samples from G - Epoch = 54



Samples from G - Epoch = 63



Samples from G - Epoch = 71



Samples from G - Epoch = 82



Samples from G - Epoch = 89

Samples from G - Epoch = 95



Samples from G - Epoch = 99

Samples from G - Epoch = 100



Loss history:

