

ERGAN
 BEGAN
 IntoGAN

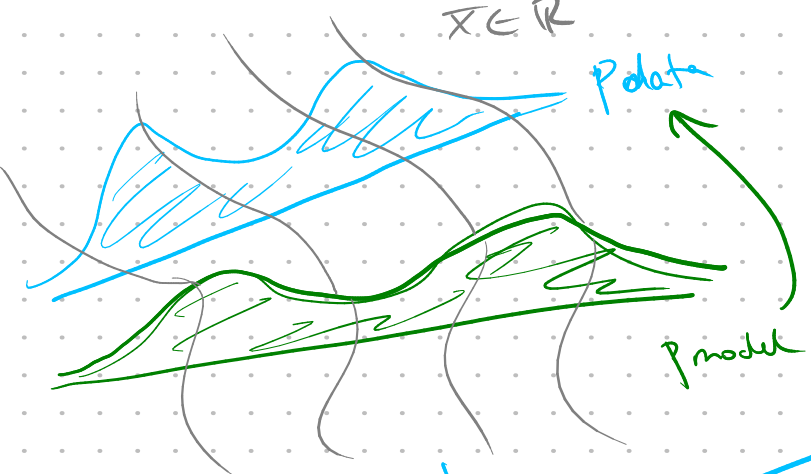
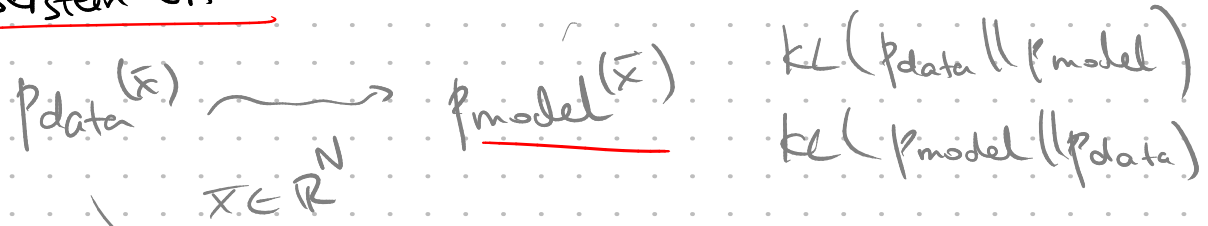
① LSGAN

$$\min \leftarrow L_D = \mathbb{E}_{p_{data}} [(D(\bar{x}) - b)^2] + \mathbb{E}_{p_G} [(D(\bar{x}) - a)^2]$$

$$\min \leftarrow L_G = \mathbb{E}_{\bar{z}} [(D(G(\bar{z})) - c)^2]$$

$a = 0$
 $b = 1$
 $c = 1$

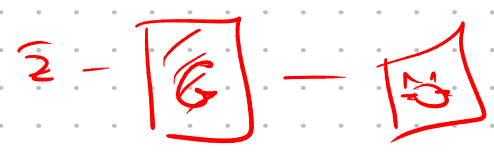
② Wasserstein GAN



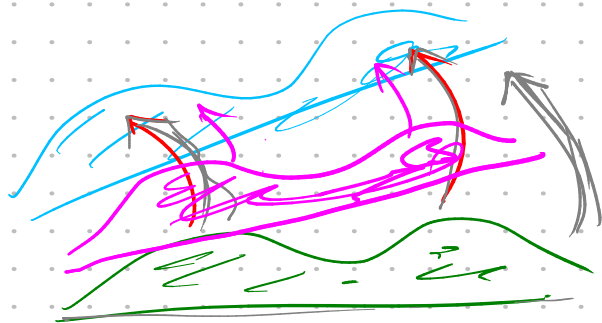
$$\begin{aligned} \underline{KL}(p_{data} || p_{model}) &= \\ &= \int p_{data}(\bar{x}) \log \frac{p_{data}(\bar{x})}{p_{model}(\bar{x})} d\bar{x} \\ &= \infty \end{aligned}$$

$p(\bar{x}) = \mathcal{N}(\bar{x}; \mu, \sigma)$

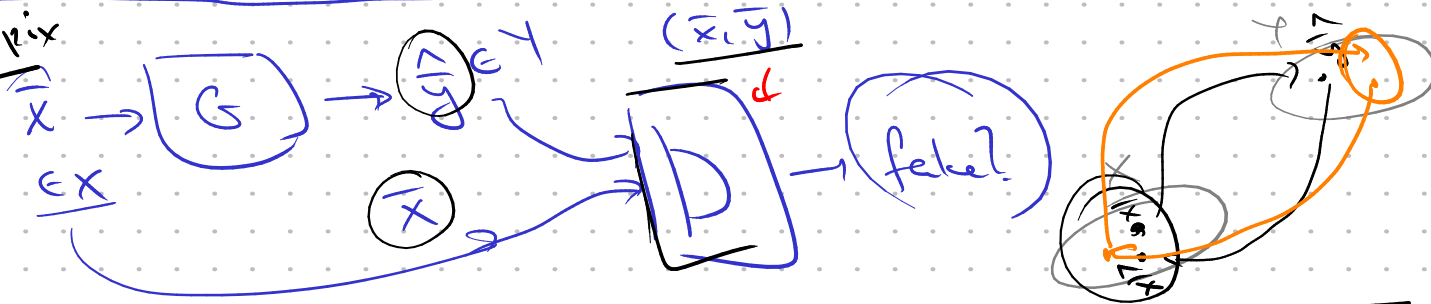
$p_{model} = \underline{\underline{\quad}} + \mathcal{N}(\bar{x}; \mu, \sigma)$



Earth Mover Distance



pix 2 pix



CycleGAN

