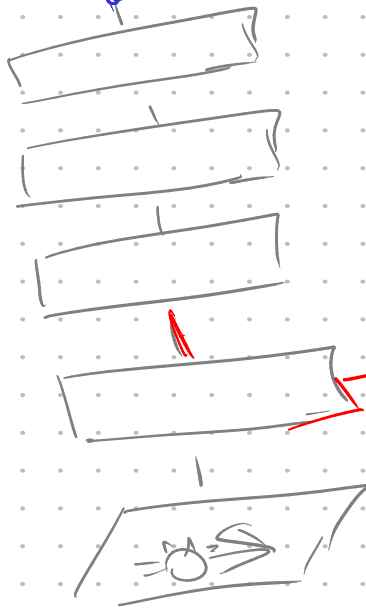


Getys et al. 2015

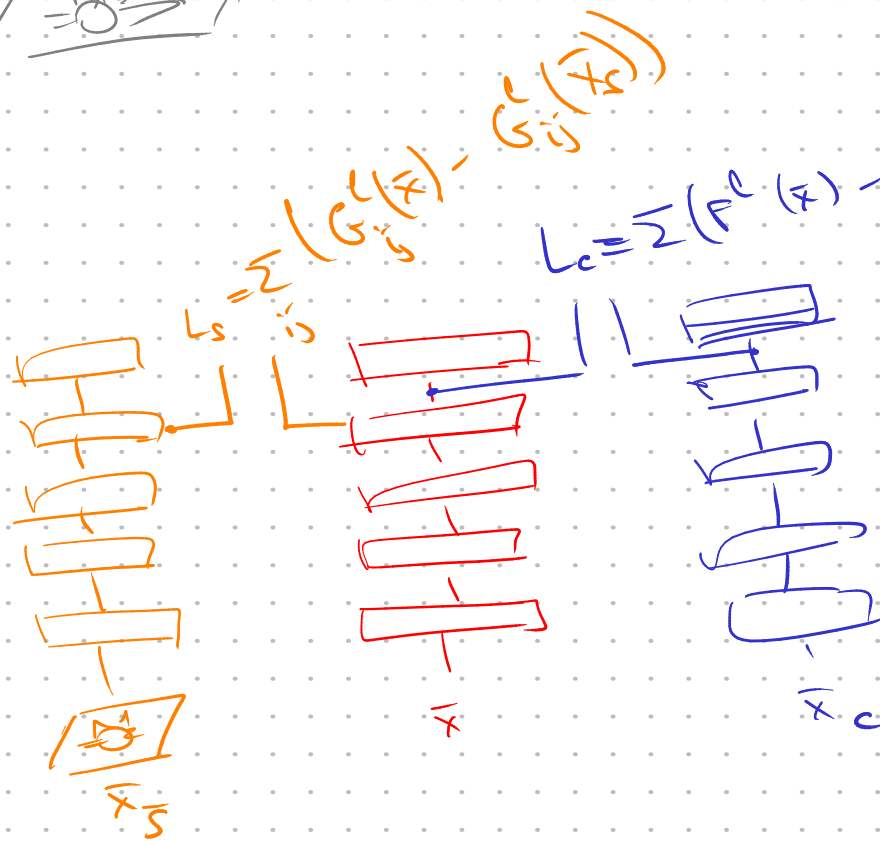


$F^l(x)$ - content

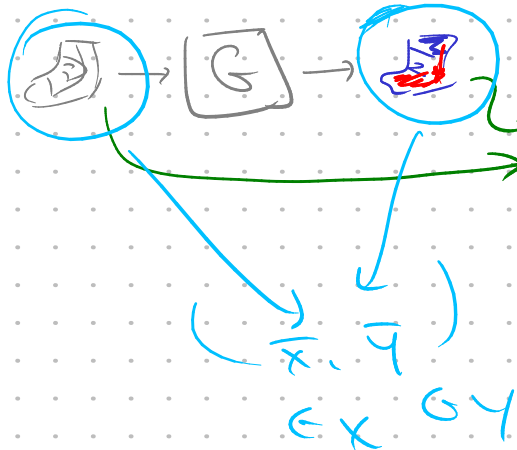
$$F(\underline{w}, \underline{x})$$

$$\nabla_x F$$

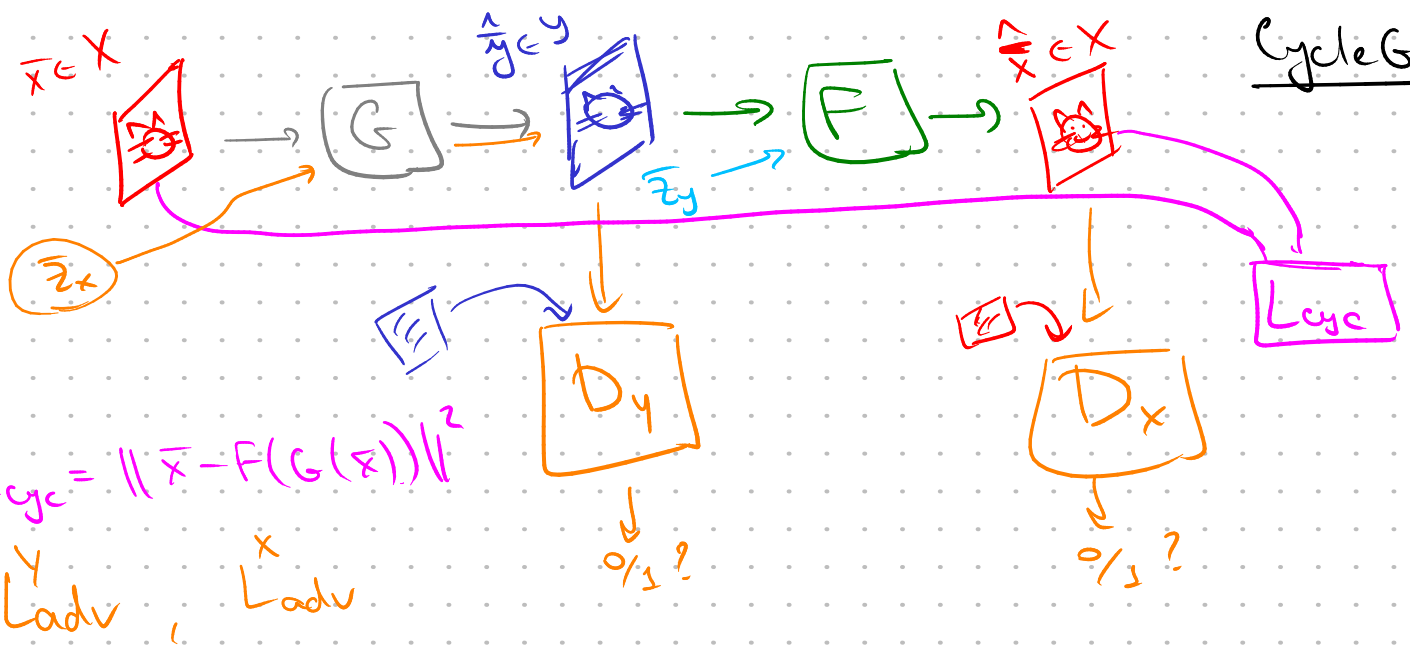
$$G_{ij}^e = \sum_k F_{ik}^e F_{jk}^e \text{ - style}$$



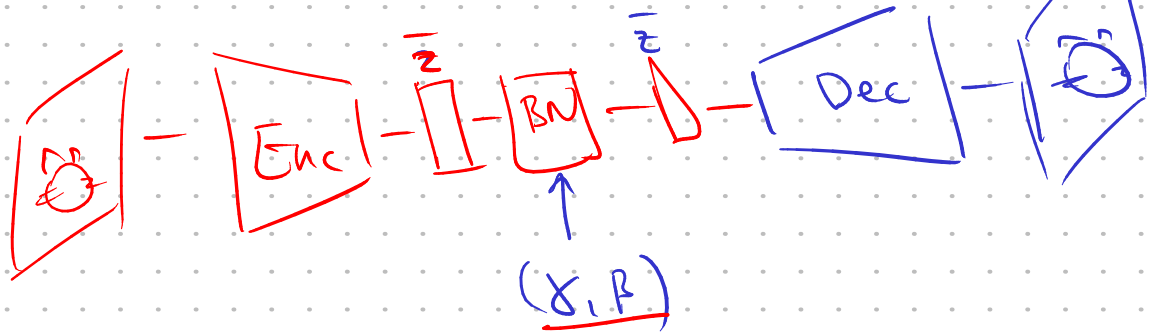
pix2pix
 \rightarrow fake/real!
 paired dataset



CycleGAN



$\mu(\bar{x})$ (mean), $\sigma(\bar{x})$ (std dev)
 $BN(\bar{x}) = \frac{\bar{x} - \mu(\bar{x})}{\sigma(\bar{x})} \cdot \gamma + \beta$



$CIN(\bar{x}; s) = \gamma_s \cdot \frac{\bar{x} - \mu(\bar{x})}{\sigma(\bar{x})} + \beta_s$
 $AdaIN(\bar{x}, \bar{y}) = \frac{\bar{x} - \mu(\bar{x})}{\sigma(\bar{x})} \cdot \sigma(\bar{y}) + \mu(\bar{y})$
 $(\alpha \cdot \sigma(\bar{y}) + (1 - \alpha) \sigma(\bar{x}))$