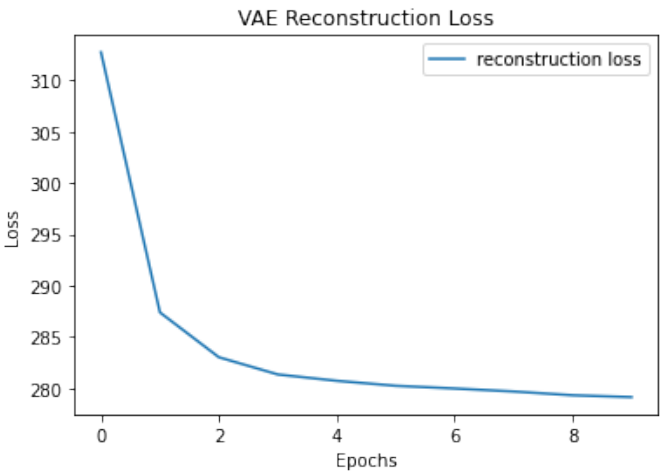
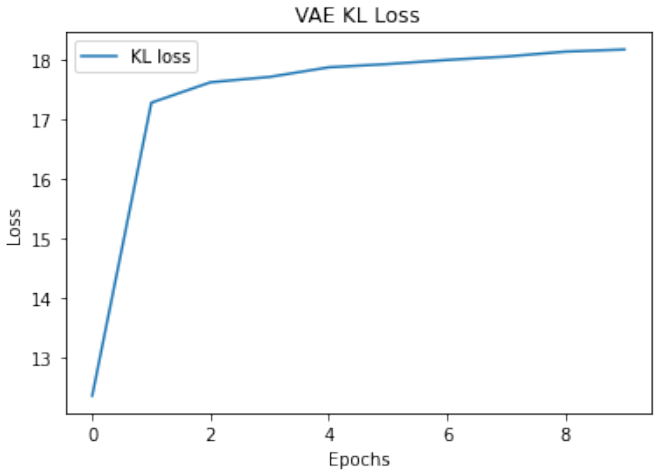
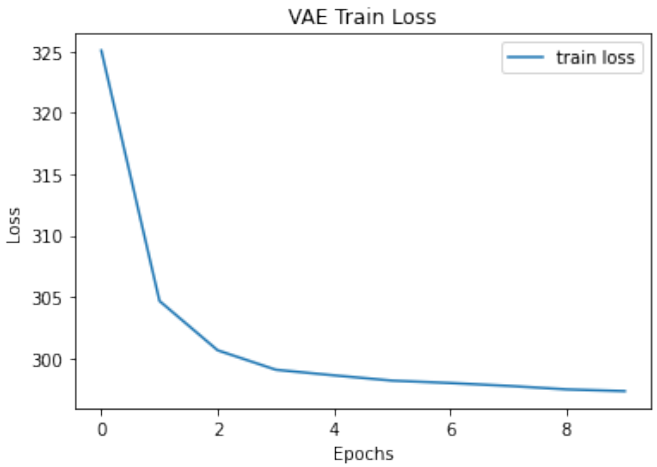
1. Training curves

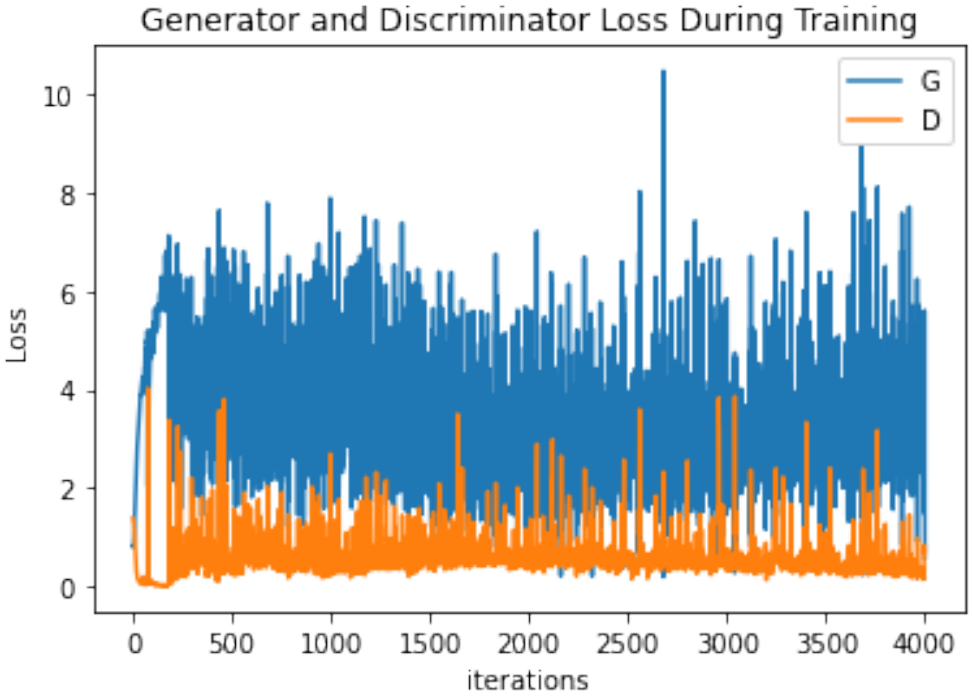
a. VAE training curves



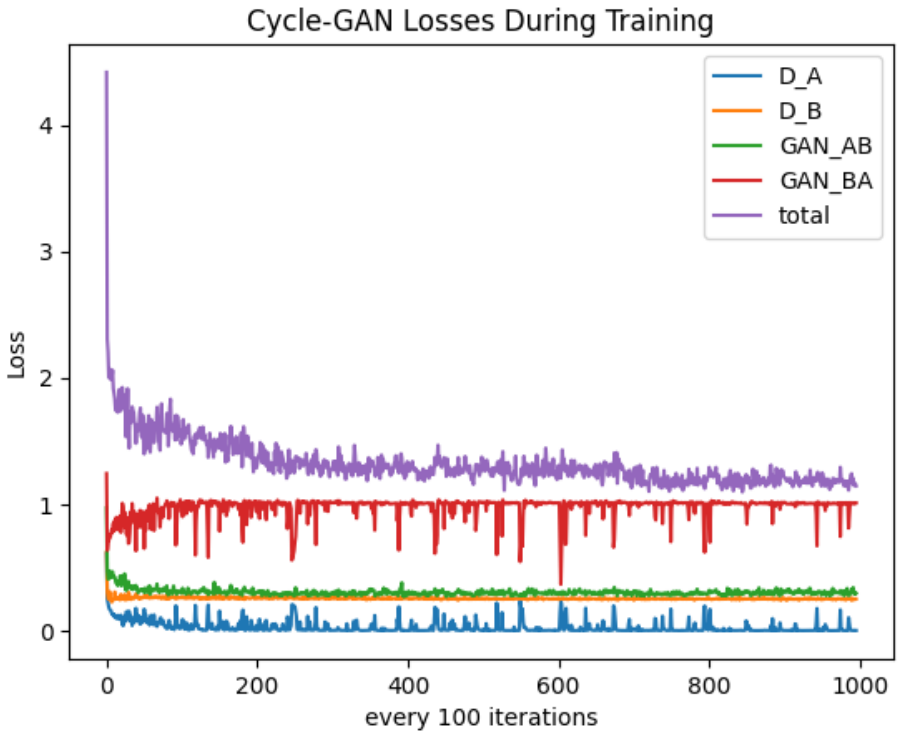


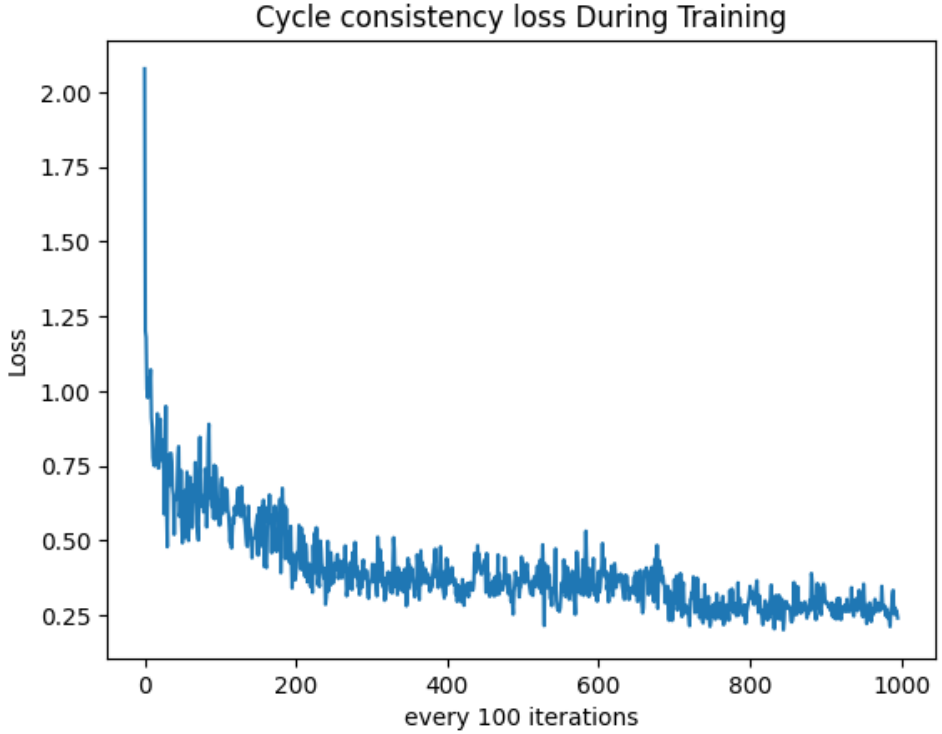


b. GAN training curves



c. Cycle-GAN training curves

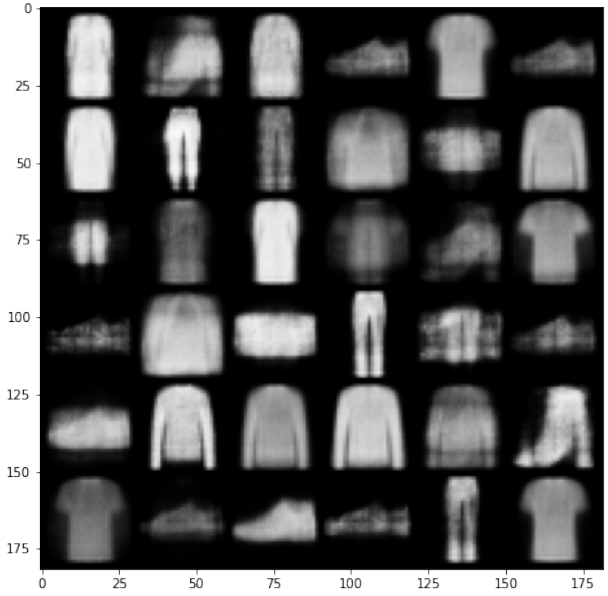




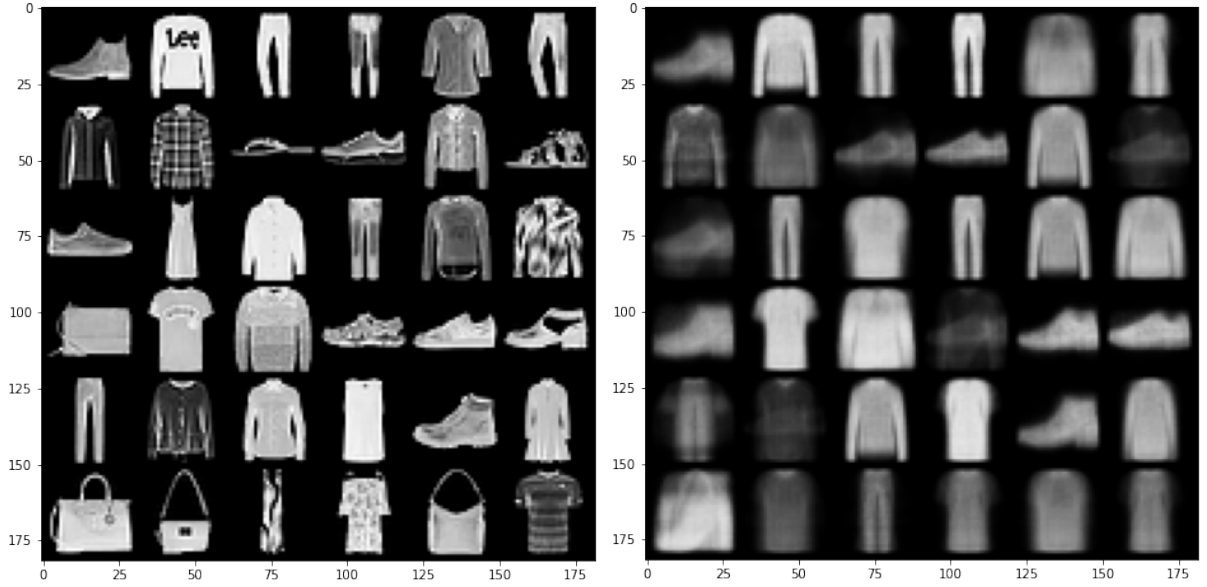
2. Qualitative Evaluation

a. VAE visualization:

6 × 6 grid generated from random noise

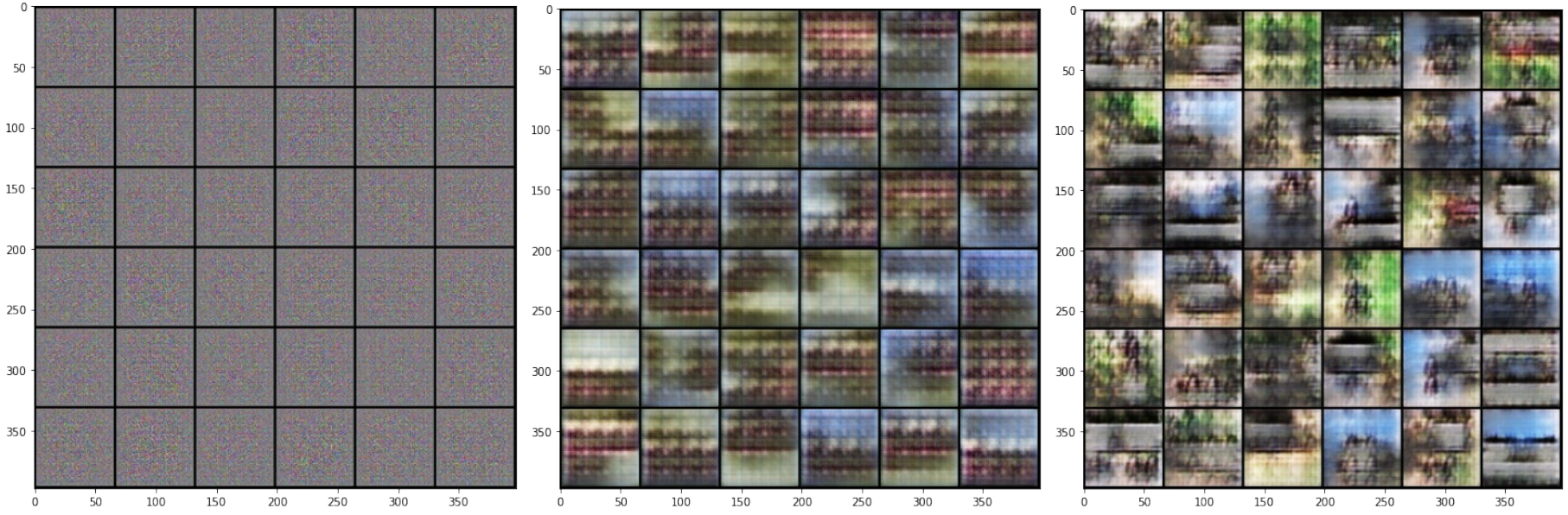


6 × 6 grid reconstructed from a given input (left: original, right: reconstructed)



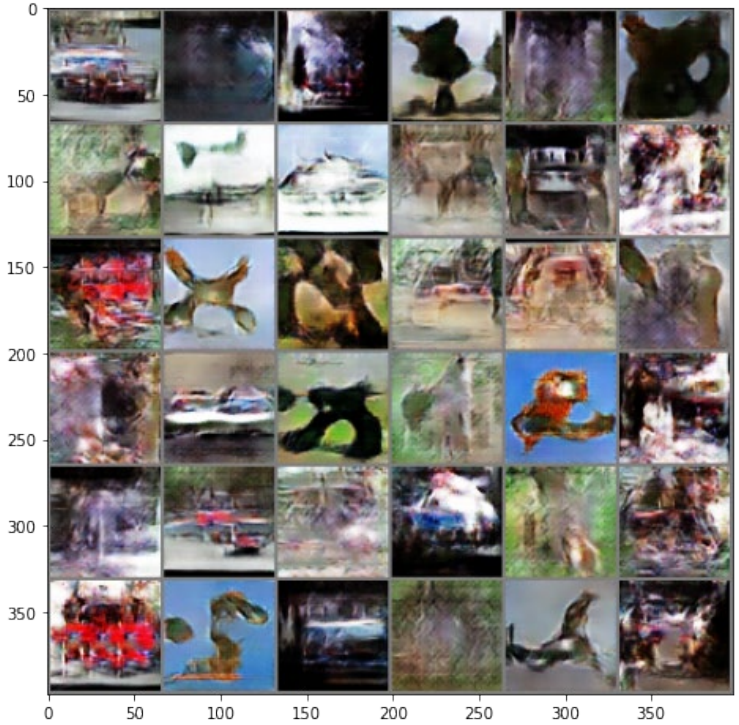
b. GAN visualization:

6 × 6 grid at different epochs (every 10 epochs)

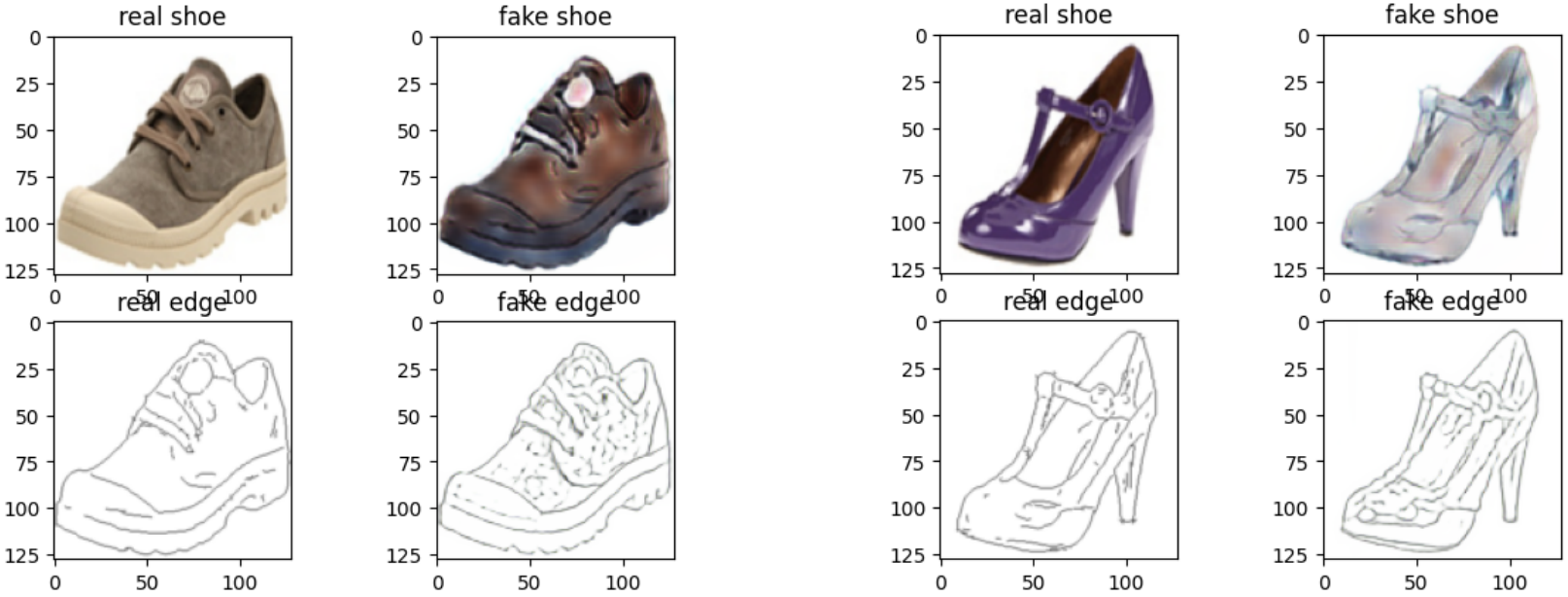


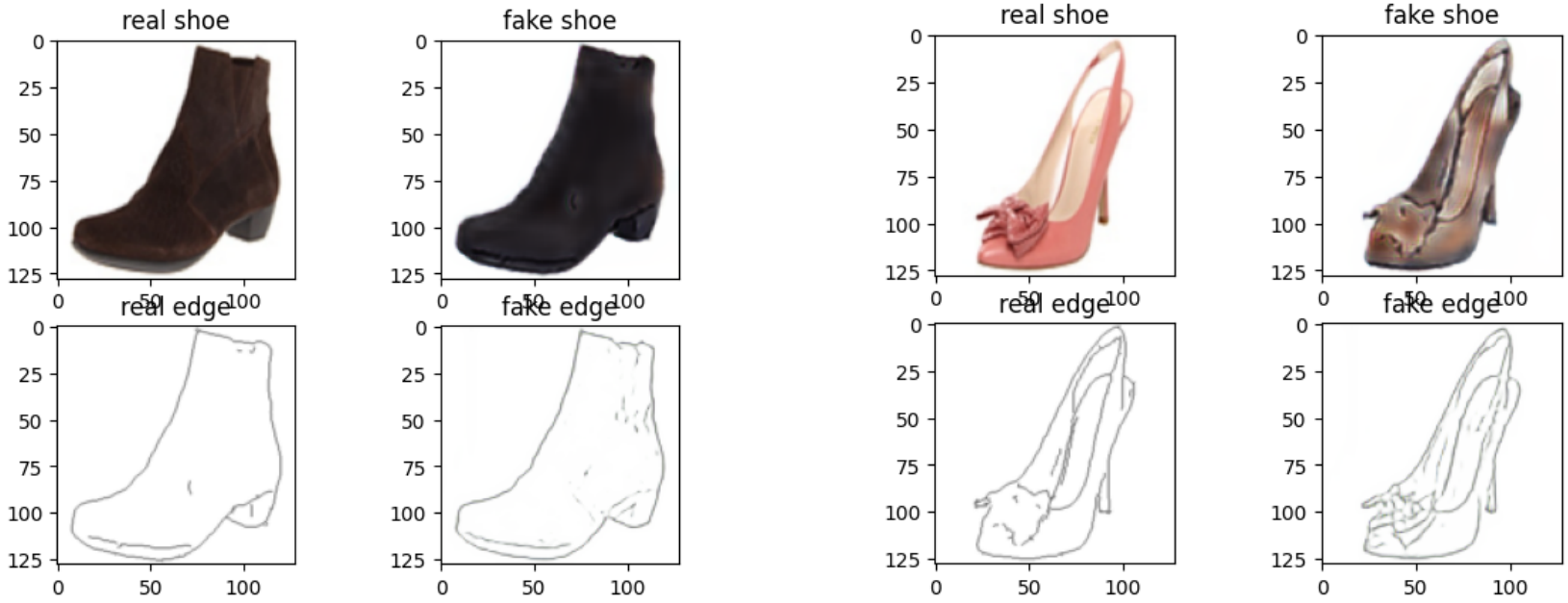

0
50
100
150
200
250
300
350

6 × 6 grid generated from random noise



c. Cycle-GAN visualization:
4 sets of 2 × 2 grid





3. Quantitative Evaluation

a. VAE evaluation:

Image Set	IS VAE
Real image set	4.287960977598869
Generated image set	2.3836152566424307

b. GAN evaluation:

Image Set Pair	FID GAN	Image set	IS GAN
STL-10 real set 1 vs STL-10 real set 1	-2.2148069376726198e-05	STL-10 real set 1	14.623438271469077
STL-10 real set 1 vs STL-10 real set 2	37.67568960223906	STL-10 real set 2	15.913449282968289
STL-10 real set 1 vs STL-10 generated set	202.74021824556306	STL-10 generated set	2.635235851618563

c. Cycle-GAN evaluation:

Image Set Pair	FID CycleGAN	Image set	IS CycleGAN
real edge 1 vs real edge 2	51.411658033682244	real edge1	1.0025464294115363
real edge 1 vs generated edge	102.29938281049925	generated edge	1.0007178902388312
real shoe 1 vs real shoe 2	59.630211324006694	real shoe 1	3.658219188842507
real shoe 1 vs generated shoe	119.40115948160134	generated shoe	3.571367487835576