## CP3 Report

## $\mathbf{EBM}$

Here we show the result of EBM:

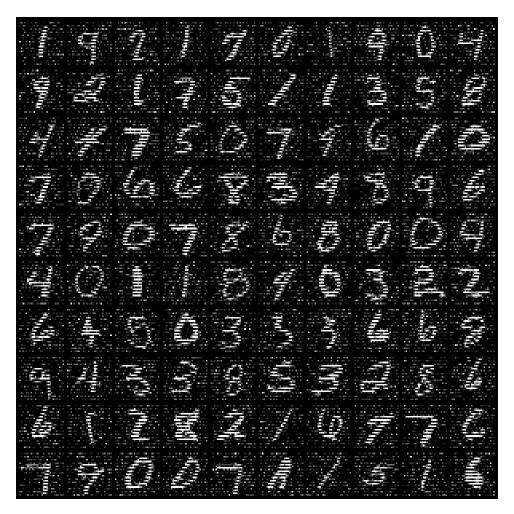


Figure 1: corrupted data from EBM  $\,$ 

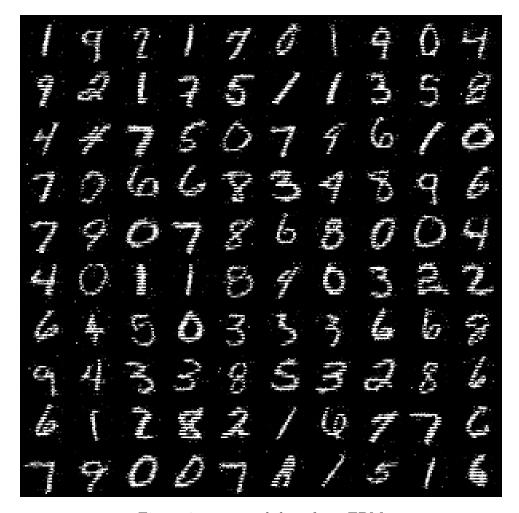


Figure 2: recovered data from EBM

The recovered MSE of the picture is 0.031, while the corrupted MSE is 0.063.

## GAN

Here we show the result of GAN:

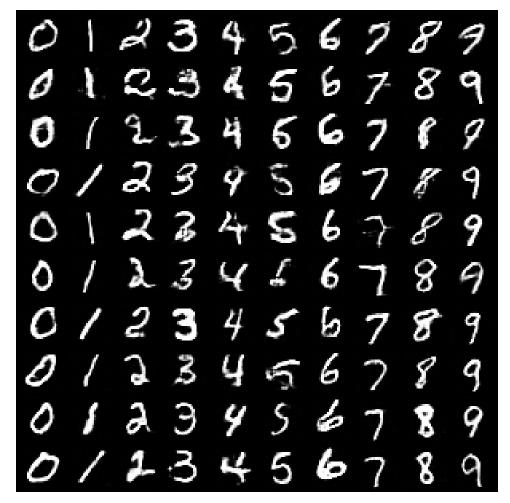


Figure 3: sample from  $\operatorname{GAN}$ 

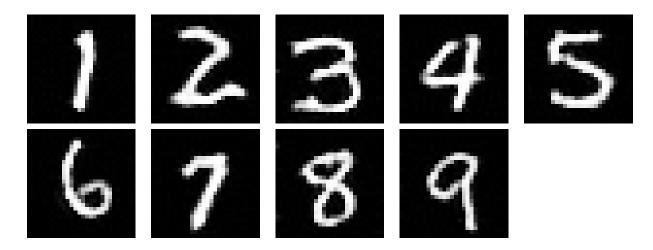


Figure 4: Generated images from GAN

The std is shown in the below table:

Number	Standard Deviation	Requirements
0	0.1719	0.17
1	0.0920	0.08
2	0.1811	0.17
3	0.1639	0.15
4	0.1588	0.14
5	0.1733	0.16
6	0.1609	0.15
7	0.1470	0.13
8	0.1689	0.15
9	0.1407	0.13

Table 1: Standard deviation of generated numbers from GAN

The FID score for the 10 classes is as follows:

Class	FID Score
0	5.599
1	8.525
2	10.571
3	5.246
4	10.545
5	15.946
6	4.126
7	9.902
8	7.992
9	8.480

Table 2: FID scores for 10 classes