Md: Israil Hosen

Roll: 2010876110

Neural Network and Deep Learning Assignment-10

[Code link]

a

Five images were generated by passing five noise vectors or matrices through the Decoder of the trained Autoencoder. The noise vectors were drawn from a normal distribution with mean 5 and specified variance. The outputs are given below after passing the model:-
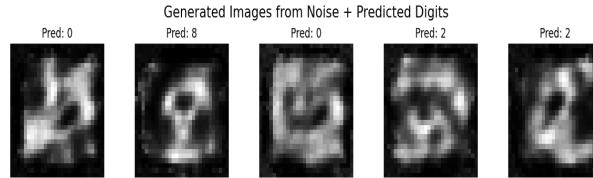

Figure 1: Images generated from noise vectors using the Decoder of the trained Autoencoder

b

Five images were generated by passing five noise vectors or matrices through the Decoder of the trained Denoising Autoencoder. The noise vectors were drawn from a normal distribution with mean 5 and specified variance. The outputs are given below after passing the model.
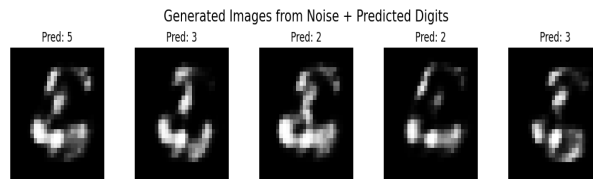

Figure 2: Images generated from noise vectors using the Decoder of the trained Denoising Autoencoder

c

[Code link]

A Variational Autoencoder(VAE) was trained and evaluated on the MNIST digit dataset. The original outputs and their corresponding reconstructed outputs are given below:-
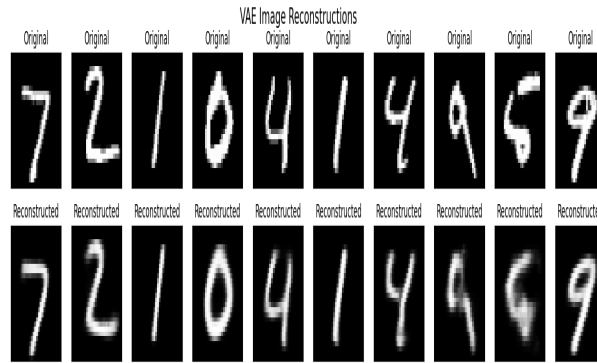

Figure 3: Original and reconstructed outputs generated by the trained Variational Autoencoder

Five images were generated by passing five noise vectors or matrices through the Decoder of the trained Variational Autoencoder. The noise vectors were drawn from a normal distribution with mean 5 and specified variance(1). The outputs are given below after passing the model:-
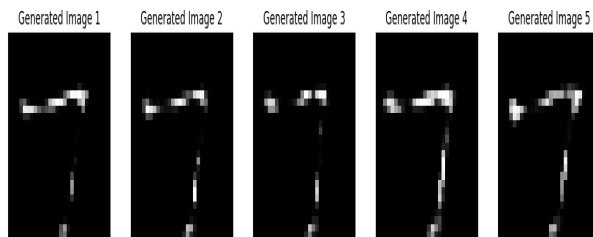

Figure 4: Images generated from noise vectors using the Decoder of the trained Variational Autoencoder

Five images were generated by passing five noise vectors or matrices through the Decoder of the trained Variational Autoencoder. The noise vectors were drawn from a normal distribution with mean 0 and variance 1. The outputs are given below after passing the model:-
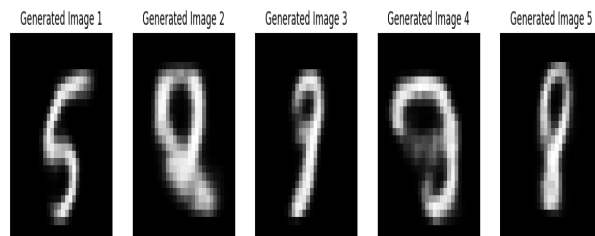

Figure 5: Images generated from noise vectors using the Decoder of the trained Variational Autoencoder