Remission of sins HW rubric

Q1 Denoising autoencoders 50 pts
1. Obtain (or write! but this isn't required) a tensorflow code for a denoising autoencoder. Train this autoencoder on the MNIST dataset.   15 pts
        - Correctly obtain or implement tensorflow code for denoising autoencoders. Correctly use the training and testing data   100%
        - Structure does not meet requirement, train and testing with wrong data set. 70%
        - Not done   0%
2. For each image in the MNIST test dataset, compute the residual error of the autoencoder. Prepare a figure showing the mean residual error   10 pts
        - Correctly calculate the mean error and show the image correctly in the right scale 100%
        - Partly correct. Missing the signs, scale is not clear. 70%
        - Not done   0%

3. Show First five principal components on the same grayscale for all six images AND gray scale chosen for each image separately   25 pts
        - Find the principal components correctly and plot in the correct scale   100%
        - Calculation is partly wrong; the images are not in the correct scale; the trend is not correct   80%
        - Not done   0%

Q2 Variational autoencoders 50 pts

1. Obtain (or write! but this isn't required) a tensorflow code for a variational autoencoder. Train this autoencoder on the MNIST dataset. Use only the MNIST training set.   10 pts
        - Correctly obtain or implement tensorflow code for variational autoencoders. Correctly use the training and testing data   100%
        - Structure does not meet requirement, train with wrong data set. 70%
        - Not done   0%

2. For 10 random pairs of MNIST test images of the **same** digit, compute the code for each image of the pair and get 7 evenly spaced linear interpolates between these codes. Prepare a figure showing the interpolates and test images.   20 pts
        - Correctly sample the digit and get the code. Calculate the interpolate correctly. All images are shown correctly and in the right trend.   100%
        - Partially correct; incorrect calculation of interpolate; images not shown correctly; the trend is not correct.   70%
        - Not done   0%

3. For 10 random pairs of MNIST test images of the **different** digit, compute the code for each image of the pair and get 7 evenly spaced linear interpolates between these codes. Prepare a figure showing the interpolates and test images. 20 pts

     - Correctly sample the digit and get the code. Calculate the interpolate correctly. All images are shown correctly and in the right trend.   100%

     - Partially correct; incorrect calculation of interpolate; images not shown correctly; the trend is not correct.   70%

     - Not done   0%