



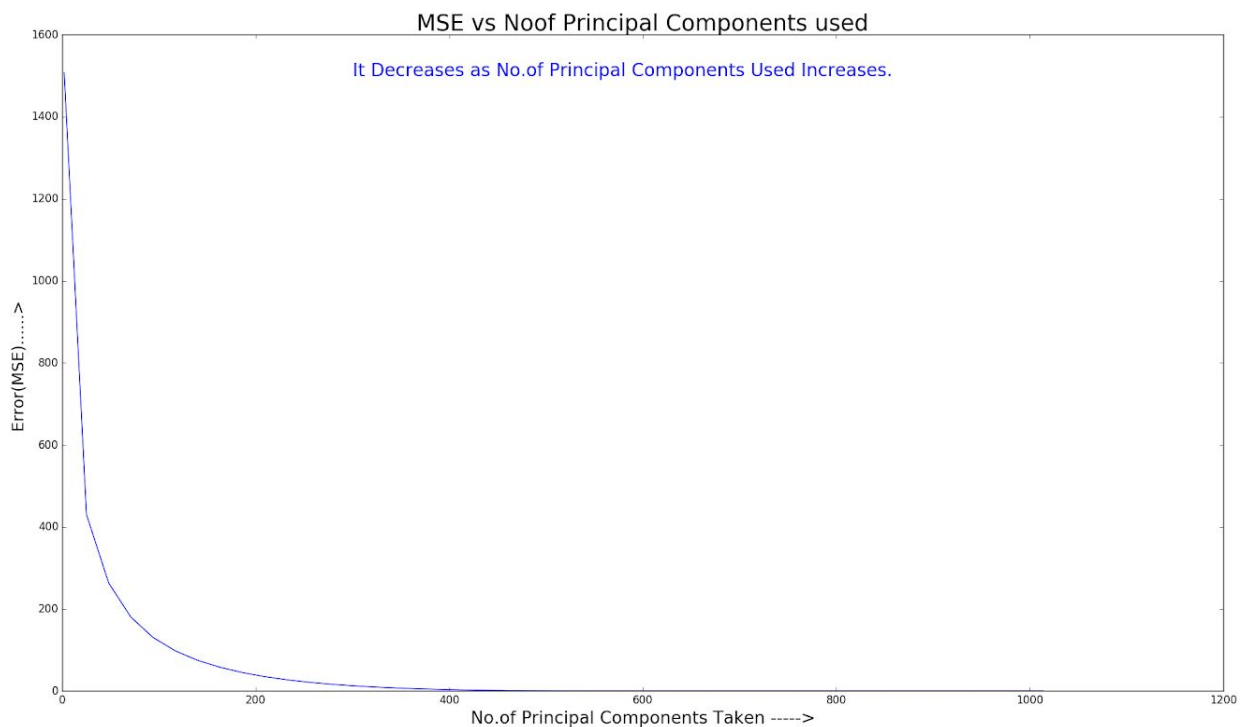
SMAI Mini Project-1

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All images in the given dataset are 256x256 size, As it is very big dimension to handle, So, we resized the all images into 32x32. And performed PCA over them.

As we can reconstruct the images with smaller components, Here we face the problem that
“How many components We have to Select?”

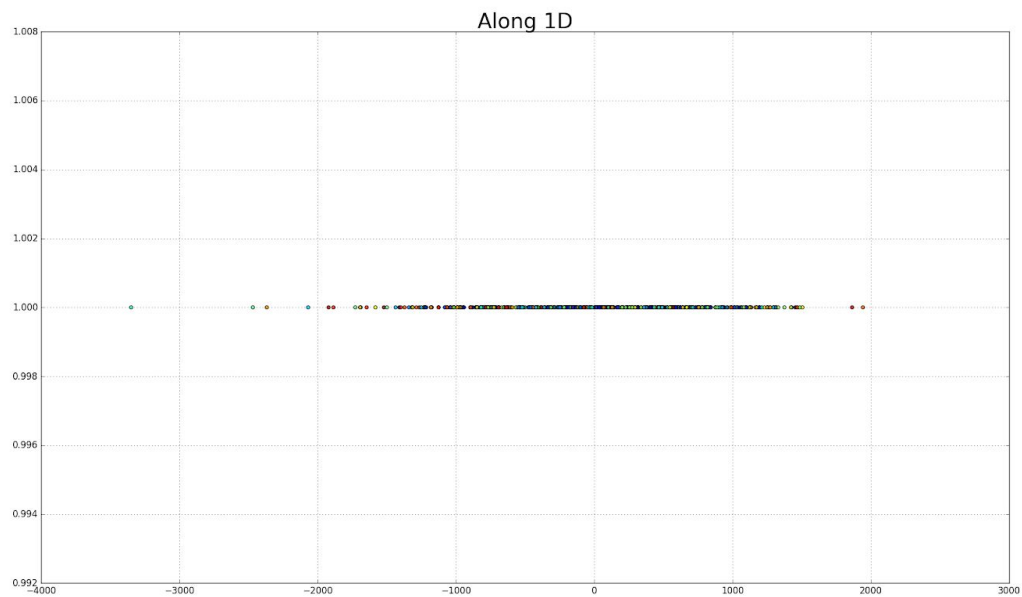


We can conclude from the above plot that the No. of components selected as increases the reconstruction loss decreases.

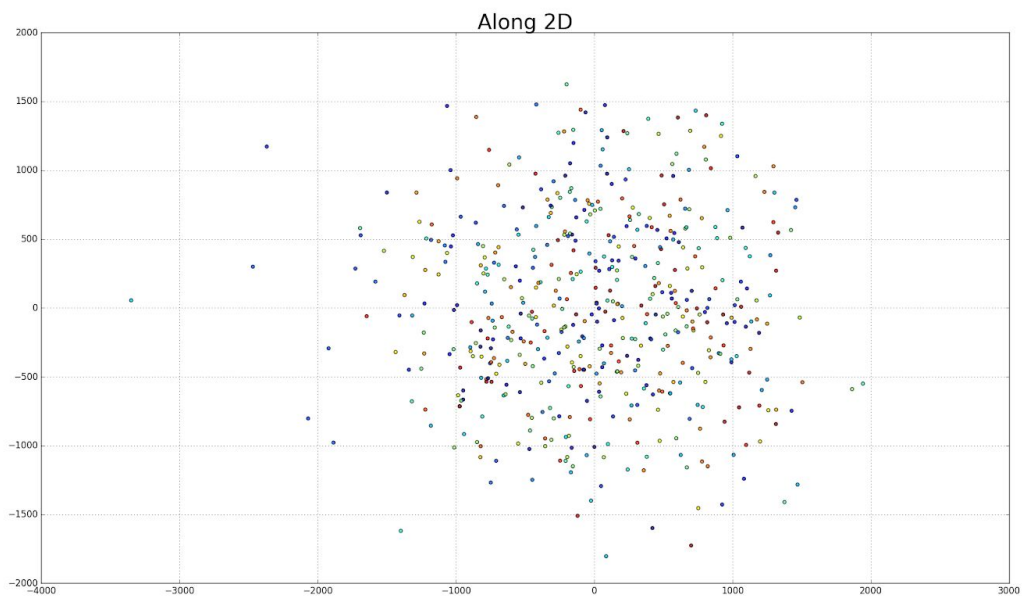
So, no of components selected can be around 300.

Scatter Plots:

Along 1D:



Along 2D:



Along 3D:

