DataSet

Name: MNIST handwritten digits http://yann.lecun.com/exdb/mnist/

I used 5923+5918 images (5923 '0' and 5918 '6')

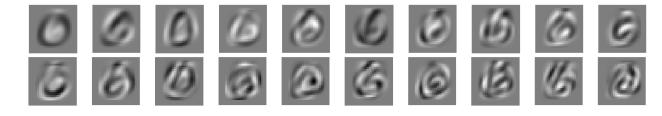
0	0	Ð	0	0	6	6	G	6	6
_	Ø	0	Ø	0	6	6	6	6	6
0	\circ	0	0	0	66	6	6	6	6
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0	0	0	Ö	0	6		46	6	6
٥	0	0	0	0	6	6	6	6	6
000000000	00	0	0	00000000000000	64664	6	6	6	6
O	O	0	0	0	46466	6	le	4466	6
0	0	00	0	0	6	و	6	ሬ	6
0	ø	0	0	0	6	6	666	6	6
0	00	0	0	0	46	6	6	6	6
0	0	0	0000	0	6	6	6	6	6
O	0	0	000	0	0	6	6	6	6
0	0	0	0	0	6	6	6	6	6
0	0	0	0	0	6	رار ک	6	G	6
00000000000	0	0	0	00	96666	6	6	6666	000000000000000000000000000000000000000
0	0	0	0	0	6	Ġ	6	6	6
0	0	A	0	0	6	6	4	6	6

PCA

Mean face:

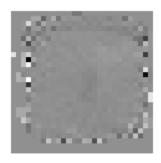


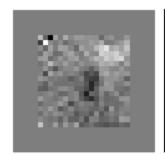
Eigen faces:

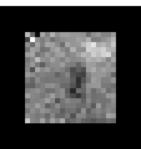


LDA

The linear mapping



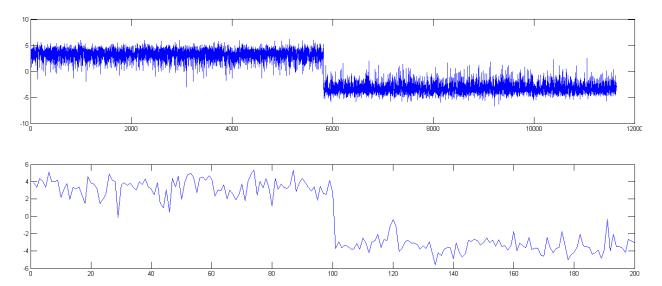




original image

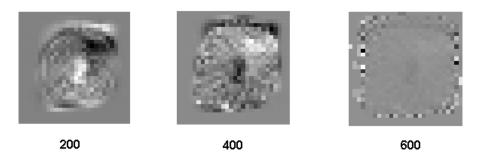
increase visibility of central part

The coefficients for training and test images



LDA+PCA

The linear mapping is reconstructed for different dimensions



The coefficients for training and test images (reduced dimension:500)

