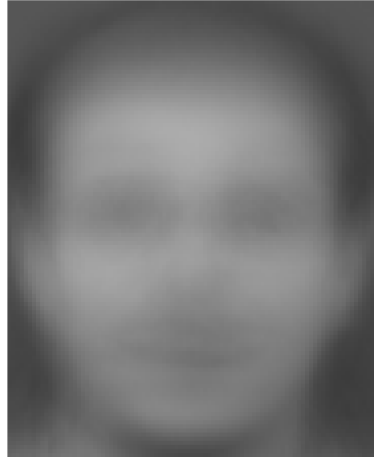


Data Visualization

image #120 in the dataset



mean face of the dataset



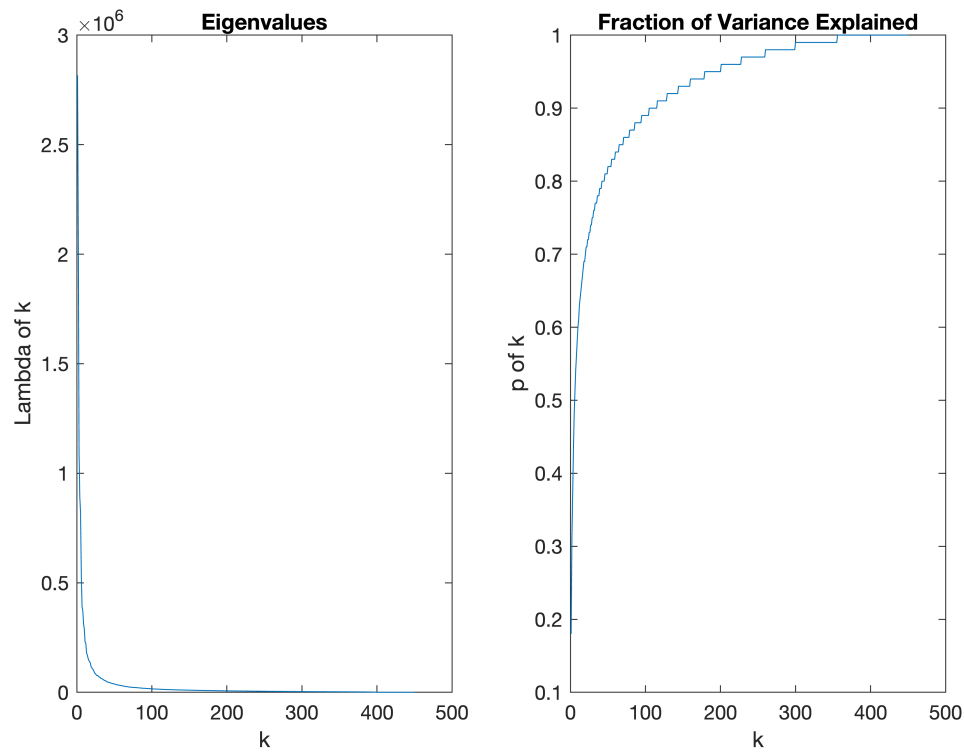
The mean face resembles a smooth shapeless "blob"

The first five eigenvalues are

1.0×10^9 *

1.1267
0.8258
0.4377
0.3570
0.3270

Eigenvalues from largest to smallest



The smallest values of k for which $p_k \geq 0.51, 0.75, 0.90, 0.95,$ and 0.99

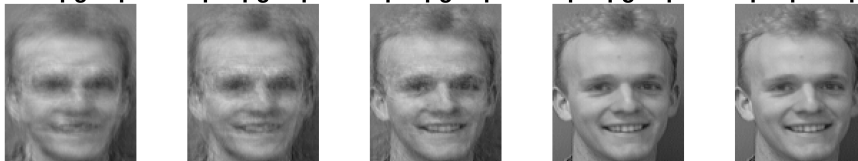
6 29 105 179 300

Approximating original image by adding eigen faces

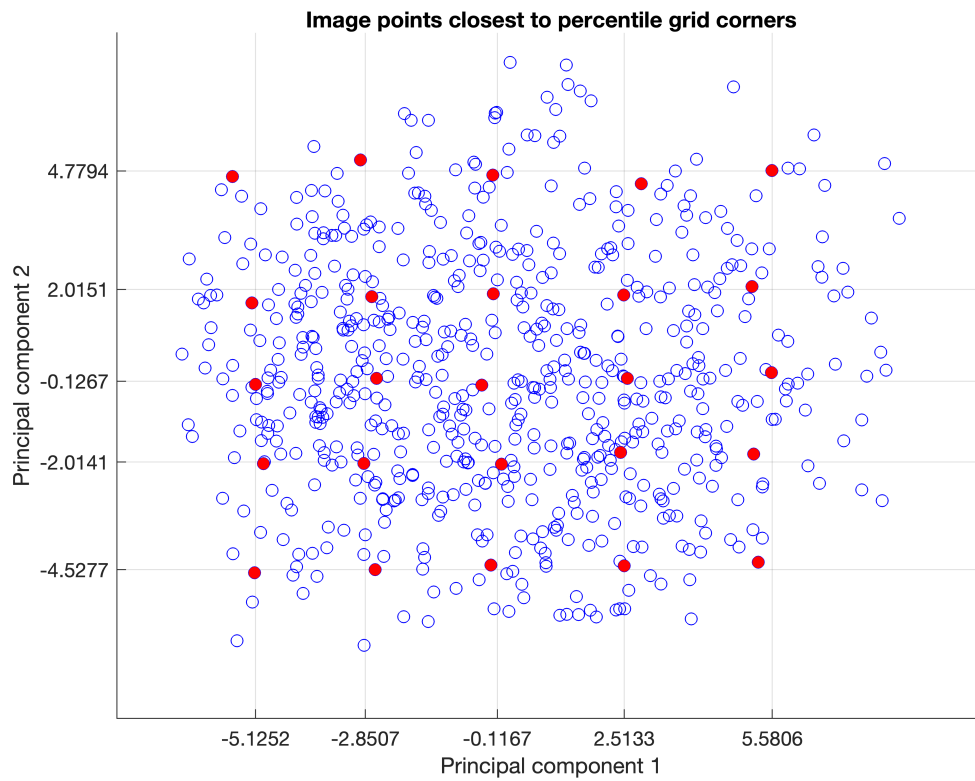
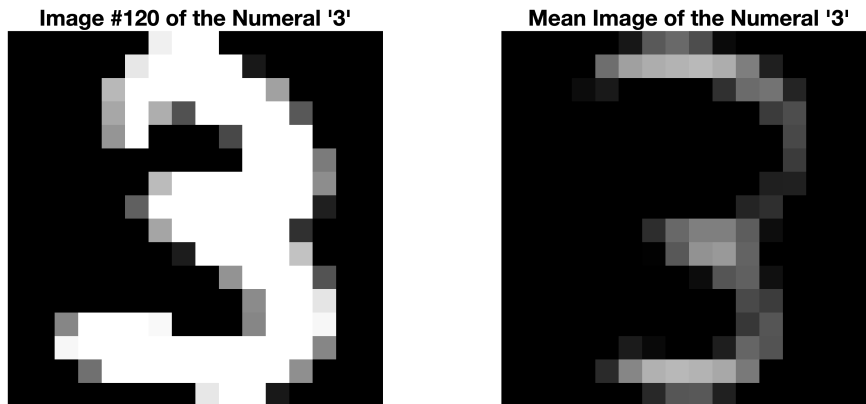
image #43 with 0 principal components image #43 with 1 principal component image #43 with 2 principal components image #43 with 3 principal components image #43 with 4 principal components image #43 with 29 principal components



image #43 with 105 principal components image #43 with 179 principal components image #43 with 300 principal components image #43 with 400 principal components image #43 with 500 principal components



Data Visualization



Images closest to percentile grid corners

Image 73



Image 284



Image 392



Image 247



Image 184



Image 238



Image 84



Image 488



Image 344



Image 149



Image 550



Image 133



Image 645



Image 142



Image 234



Image 82



Image 4



Image 417



Image 405



Image 375



Image 640



Image 322



Image 500



Image 649



Image 176

