Coursework Four Results by mlo08

Mean vector for HepatitisC.txt:
[1.1638756   3.91626794 0.44796651 5.67882775 4.86543062 3.77811005
  4.12739234 3.60406699 0.21650718]
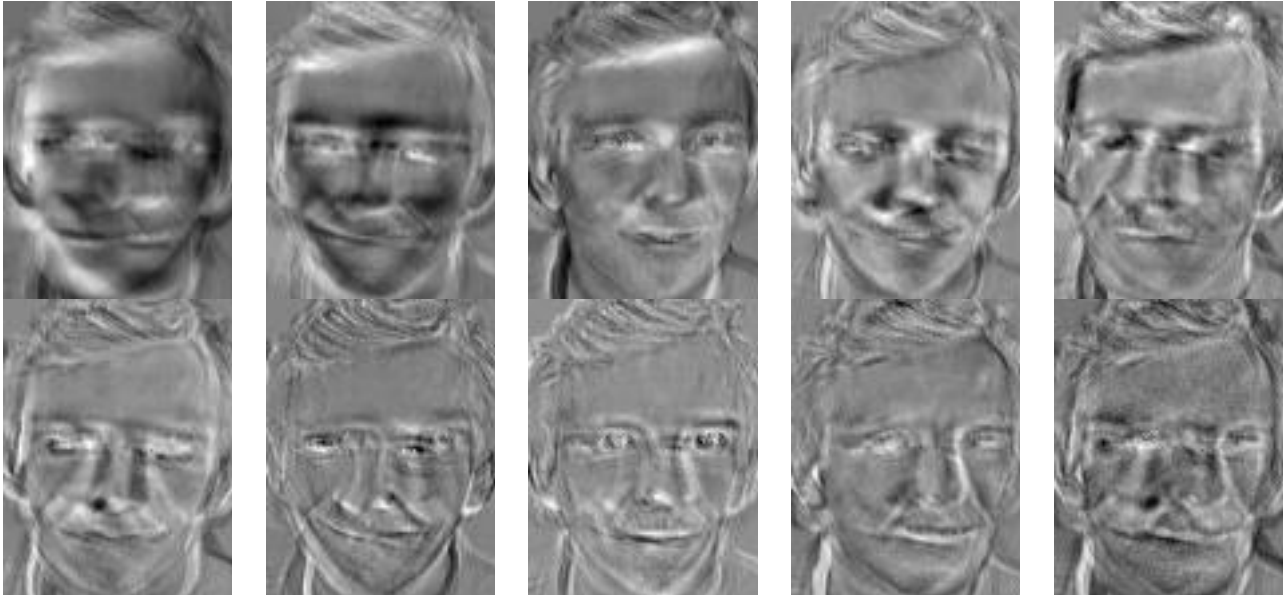
Covaraince matrix for HepatitisC.txt:
[[5.87977145e+00   2.44729254e-01 -4.03520225e-03 -2.84260206e-01
   -3.45977253e-01 -4.17236477e-01 -4.81092461e-01 -2.67213856e-01
   -6.72190105e-02]
 [2.44729254e-01   7.57168014e+00   7.34382472e-02 -3.57848064e-01
   -3.45804735e-01   2.57292284e-01   2.27279170e+00   9.45882333e-01
   -3.15314154e-02]
 [-4.03520225e-03   7.34382472e-02   2.47440506e-01 -1.15764204e-01
   -3.90230616e-02 -3.47362408e-03   9.96906846e-02   6.61602799e-02
   -5.48406679e-03]
 [-2.84260206e-01 -3.57848064e-01 -1.15764204e-01   1.69602217e+01
    7.96872307e+00   4.44275589e+00 -1.03625991e+00 -3.06173566e-01
    4.68368367e-02]
 [-3.45977253e-01 -3.45804735e-01 -3.90230616e-02   7.96872307e+00
    8.36069533e+00   4.92105013e+00 -7.62619224e-01 -7.52294990e-01
   -7.69530322e-04]
 [-4.17236477e-01   2.57292284e-01 -3.47362408e-03   4.44275589e+00
    4.92105013e+00   6.68263245e+00 -8.72157033e-02 -3.75757719e-01
   -1.41038802e-01]
 [-4.81092461e-01   2.27279170e+00   9.96906846e-02 -1.03625991e+00
   -7.62619224e-01 -8.72157033e-02   2.05828040e+01   1.12168386e+00
    1.36947764e-02]
 [-2.67213856e-01   9.45882333e-01   6.61602799e-02 -3.06173566e-01
   -7.52294990e-01 -3.75757719e-01   1.12168386e+00   4.31711092e+00
    1.19286506e-01]
 [-6.72190105e-02 -3.15314154e-02 -5.48406679e-03   4.68368367e-02
   -7.69530322e-04 -1.41038802e-01   1.36947764e-02   1.19286506e-01
    1.69733334e-01]]

Components magnitudes for c.pgm:
1206.254 -1590.133 -248.136 -821.249 246.009 -771.900 963.633 376.967 161.599 -533.276
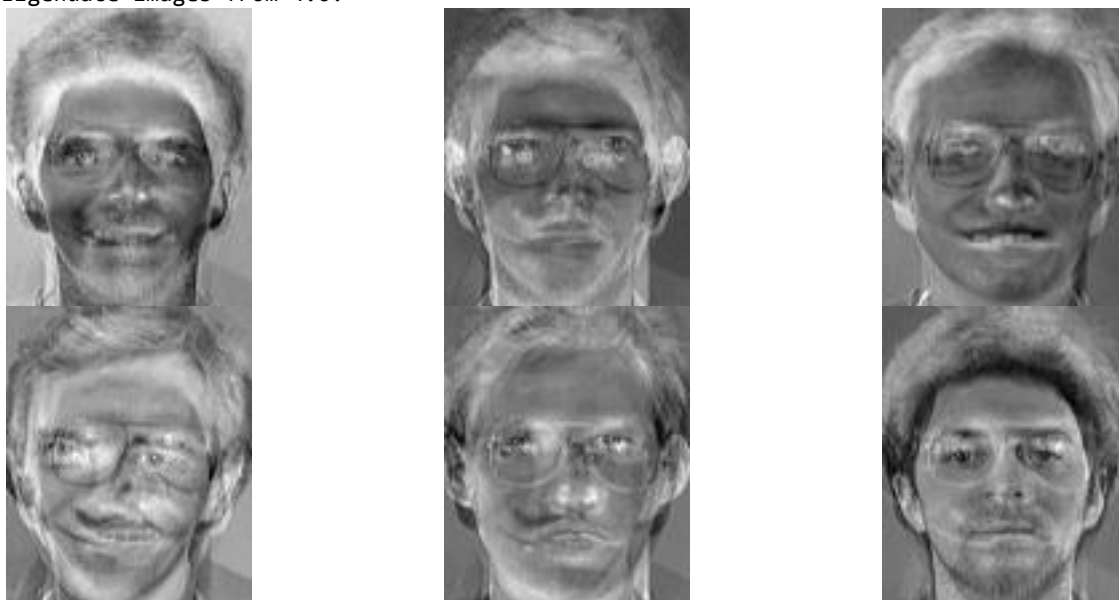

Eigenface images from 4.3:

Reconstructions of c.pgm from 4.5:

Eigendace images from 4.6:

Reconstructions of c.pgm from 4.6: