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Assignment 4

Q3.

Obtain the eigenfaces and coefficients for all the 32×6 images in the training dataset.
For each test image, if the minimum distance between coefficients of test image and any images in the training dataset is greater than a threshold, then the image is not in the dataset.
If it's small, the image resembles one of the images in the dataset.

With threshold chosen to be 6.5×10^{-6} ,

Number of false positives = 6 (out of 32 that are not in the database)

Number of false negatives = 25 (out of 128 test images in the database)

Thus, we get around 20% false positives and negatives