

Ans.

We will be using threshold to report the fact that there is no matching identity.

We calculate the difference between the sum of squares of the eigen-coefficient with the nearest neighbor and corresponding image and compare it with the threshold. And any image whose calculated difference lies below the threshold then we say it is in the database.

- And if for a image lies whose difference lies below the threshold and it is not in database then we have false positive.
- Similarly if for a image it's difference lies above threshold and it is in database then we have false negative.

So we have 2 parameters for tuning namely K and threshold.

For our case we calculated the optimal value of K and threshold to be 25 and 1900 respectively for which there were 26 false negative and 12 false positive.