Assignment 4

Q3) Identification of faces not in the database

- We use thresholding to tackle this.

For a new image, we calculate the sum of squared differences of the eigen coefficients ~~and threshold~~ it. with the nearest neighbour and threshold it. Anything that falls below this threshold belongs to database (claim)

* For a new image of person that is not in the database and below threshold, we have a false positive.
* For a image of person in database and above threshold, we have a false negative.

We have two parameters to tune : 'K' and 'threshold'

Optimal parameters and result :

K = 25

threshold = $(1965)^2$ (for ssd)

false_positive = 12

false_negative = 27