

Assignment 1: Foundations

Statistical Methods for Machine Learning

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1 I.2.4

The length of the scaled and translated eigenvectors represent the spread from the sample mean in orthogonal directions.

2 I.3.1

Running the algorithms for various k 's, we get the following accuracies:

- $k = 1$; 0.815789473684%
- $k = 3$; 0.710526315789%
- $k = 5$; 0.736842105263%

As such, $k = 1$ is clearly the best k for this training- and test set.