Module 8: Dimensionality Reduction

Case Study – 2

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Objective:

- Understand and practice linear discriminant analysis using scikit learn.

Questions:

1. We shall use the same dataset used in the previous assignment - digits. Make an 80-20 train/test split.
   [Hint: Explore datasets module from scikit learn]

2. Using scikit learn to perform an LDA on the dataset. Find out the number of components in the projected subspace.
   [Hint: Refer to a discriminant analysis module of scikit learn]

3. Transform the dataset and fit a logistic regression and observe the accuracy. Compare it with the previous model based on PCA in terms of accuracy and model complexity.
   [Hint: Project both the train and test samples to the new subspace]