Microsoft: DAT203x Data Science and Machine Learning Essentials

QUESTION 4 (1/1 point)

When exploring the k-means clustering of a data set you examine the projections of the first two principle component of the cluster ellipses, for a certain number of clusters, and you observe:

- The major and minor axes of each of the ellipses are of distinctly different length.
- The directions of major axes of the ellipses are distinctly different.

Which of the following statements is true?

- The number of clusters chosen is too many for this dataset and should be reduced.
- **The number of clusters chosen fits this dataset well.** ✔
- Clustering is not a useful method for this dataset.
- The clusters will exhibit a poor separation.

EXPLANATION

The principle component projections of the cluster ellipses summarize the properties of the clusters. The projected ellipses should show distinct properties. When clusters exhibit good separation the projection of the ellipses for the first two principle components of the clusters will have both distinct directions of the major axes and the lengths of the major and minor axis will be distinctly different in each ellipse.

You have used 1 of 2 submissions

Module 4 Review
Homework due Oct 30, 2015 at 00:00 UTC