

Dimensionality Reduction

Dimensionality Reduction

Principle component analysis, or **PCA**, is an alternative to regularization and stright-forward feature elimination. PCA is particularly useful for problems with very large numbers of features compared to the number of training cases. For example, when faced with a problem with many thousands of features and perhaps a few thousand cases, PCA can be a good choice to **reduce the dimensionality** of the feature space.

By completion of this lab, you will:

1. Compute PCA models with different numbers of components.
2. Compare logistic regression models with different numbers of components.

Lab Steps

1. Make sure that you have completed the setup requirements as described in the Lab Overview section.
2. Now, run jupyter notebook and open the “DimensionalityReduction.ipynb” notebook under Module 5 folder.
3. Examine the notebook and answer the questions along the way.

Question 1

1/1 point (graded)

What is the AUC of the model with 10 components?

☐ 0.751

☐ 0.734

☒ 0.777



☐ 0.799

Submit

You have used 2 of 2 attempts

✓ Correct (1/1 point)

Question 2

1/1 point (graded)

What is the AUC of the model with 20 components?

☐ 0.751

☐ 0.734

☐ 0.772

☒ 0.800



Submit

You have used 2 of 2 attempts
