

DATA 499

Worksheet 6

1. Use the Iris data in Sklearn, separate the data into training (80%) and testing (20%) and build a Naïve Bayes model. Use the model to predict what type of flower if it has sepal.length=5, sepal.width=2.6, pedal.length=5.9, and pedal.width=1.8. What flower is it? What is the accuracy score of the model?

The flower with sepal.length = 5, sepal.width = 2.6, petal.length = 5.9, petal.width = 1.8 is Iris-virginica. The accuracy score of the Naïve Bayes model is about 93%.

2. Use the Car data on D2L to build a KNN model with 80% of the data being the training data. Use the KNN model to predict the class for a car with median buying price, median maintenance and small trunk. What is the class of this car?

The class of this car is A. The accuracy of the model (for reference) is about 0.62 (62%).

3. Use the Iris data to create a SVC model and check with the accuracy.
4. Use the Iris data to create a random forest model and check with the model accuracy
5. Use the Iris data to build a neural network model and test the accuracy.