Jingxia Zhu(jingxia6)
9/2/2018

GitHub link:

https://github.com/jzhuuhzj/IE598_F18_HW1.git

```python
74
75  print( clf.predict(scaler.transform([[4.7, 3.1]])) )
76  #[0]
77
78  print( clf.decision_function(scaler.transform([[4.7, 3.1]])) )
79  #[[ 19.73905808 8.13288449 -28.63499119]]
80
81  from sklearn import metrics
82  y_train_pred = clf.predict(X_train)
83  print( metrics.accuracy_score(y_train, y_train_pred) )
84  #0.821428571429
85
86  y_pred = clf.predict(X_test)
87  print( metrics.accuracy_score(y_test, y_pred) )
88  #0.684210526316
89
90  print( metrics.classification_report(y_test, y_pred, target_names=iris.target_
91  #precision recall f1-score support
92  #setosa 1.00 1.00 1.00 8
93  #versicolor 0.43 0.27 0.33 11
94  #virginica 0.65 0.79 0.71 19
95  #avg / total 0.66 0.68 0.66 38
96
97  print( metrics.confusion_matrix(y_test, y_pred) )
98  #[[ 8 0 0]
99  #[ 0 3 8]
100 #[ 0 4 15]]
101
102 print("My name is Jingxia Zhu")
103 print("My NetID is: jingxia6")
104 print("I hereby certify that I have read the University policy on Academic Inte
105 ######STOP HERE#######################
106
107
108
109
110
111
112
113
114
115 ##error in scikit learn package, which version??
116 from sklearn.preprocessing import StandardScaler
    from sklearn.cross_validation import cross_val_score, KFold
```

```
1e-3.
   "and default tol will be 1e-3." % type(self), FutureWarning)
```

Console output (second screenshot):

```
Python 3.6.5 |Anaconda, Inc.| (default, Mar 29 2018, 13:14:23)
Type "copyright", "credits" or "license" for more information.

IPython 6.4.0 -- An enhanced Interactive Python.

Restarting kernel...


In [1]: runfile('/Users/zhujx/.spyder-py3/IE598_F18_HW1.py', wdir='/Users/
zhujx/.spyder-py3')
The scikit learn version is 0.19.1.
(150, 4) (150,)
[5.1 3.5 1.4 0.2] 0
(112, 2) (112,)
[[-30.0529983   16.42537437]
 [  1.61045739  -8.89102123]
 [ 24.47629047 -10.10233202]]
[-18.33337137   4.00949674 -10.31436028]
[0]
[[ 21.06933526   1.14161817 -42.09616299]]
0.8482142857142857
0.6578947368421053
              precision    recall  f1-score   support

      setosa       1.00      1.00      1.00         8
  versicolor       0.44      0.64      0.52        11
   virginica       0.71      0.53      0.61        19

   avg / total      0.69      0.66      0.66        38

[[ 8  0  0]
 [ 0  7  4]
 [ 0  9 10]]
My name is Jingxia Zhu
My NetID is: jingxia6
I hereby certify that I have read the University policy on Academic Integrity and that
I am not in violation.
[0.66666667 0.7        0.76666667 0.73333333 0.83333333]
Mean score: 0.740 (+/- 0.029)
/anaconda3/lib/python3.6/site-packages/sklearn/cross_validation.py:41:
```