

3]

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from pandas import read_csv
from numpy import set_printoptions
from sklearn.model_selection import train_test_split
from sklearn.feature_selection import SelectKBest
from sklearn.feature_selection import f_classif
from matplotlib import pyplot

path = r'diabetes.csv'
names = ['preg', 'plas', 'pres', 'skin', 'test', 'mass', 'ped', 'age', 'class']
dataframe = read_csv(path, names=names)
dataframe.head()

array = dataframe.values
x = array[:, 0:8]
y = array[:, 8]
print(x)
print(y)

x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.33, random_state=1)

fs = SelectKBest(score_func=f_classif, k='all')
fs.fit(x_train, y_train)
x_train_fs = fs.transform(x_train)
x_test_fs = fs.transform(x_test)

for i in range(len(fs.scores_)):
    print('feature %d:%f' % (i, fs.scores_[i]))

pyplot.bar([i for i in range(len(fs.scores_))], fs.scores_)
pyplot.show()
```