

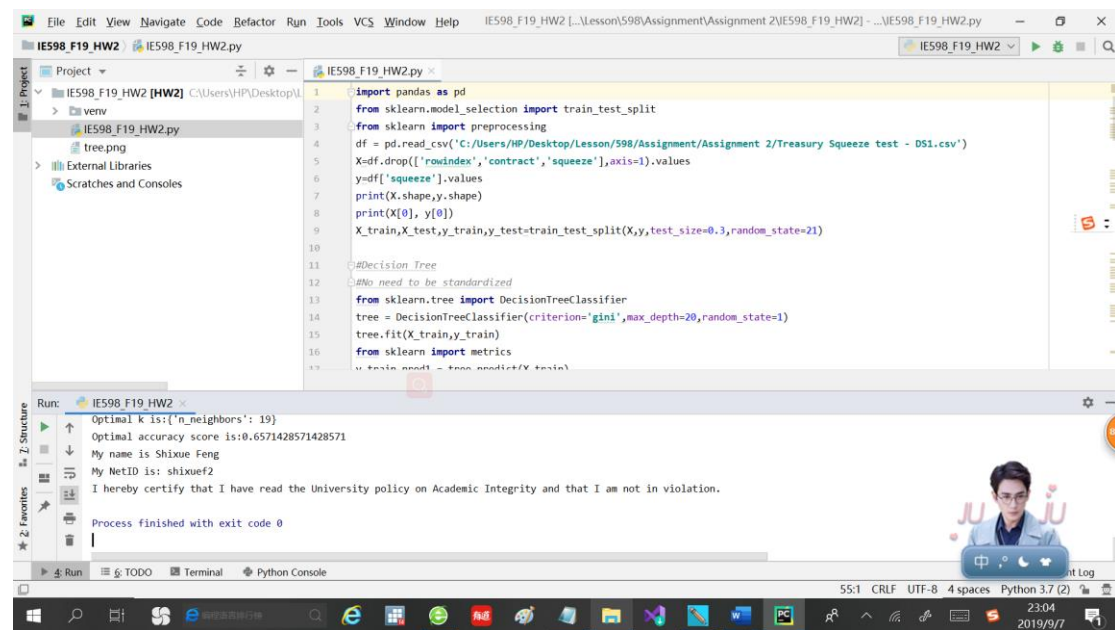
## IE598\_F19\_HW2

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Link to my code:

[https://github.com/fengzixue96/IE598\\_F19\\_HW2/blob/master/IE598\\_F19\\_HW2.py](https://github.com/fengzixue96/IE598_F19_HW2/blob/master/IE598_F19_HW2.py)

The screenshot:



```
1 import pandas as pd
2 from sklearn.model_selection import train_test_split
3 from sklearn.preprocessing import StandardScaler
4 df = pd.read_csv('C:/Users/HP/Desktop/Lesson/598/Assignment/Assignment 2/Treasury Squeeze test - DS1.csv')
5 X = df.drop(['rowindex', 'contract', 'squeeze'], axis=1).values
6 y = df['squeeze'].values
7 print(X.shape, y.shape)
8 print(X[0], y[0])
9 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=21)
10
11 #Decision Tree
12 #No need to be standardized
13 from sklearn.tree import DecisionTreeClassifier
14 tree = DecisionTreeClassifier(criterion='gini', max_depth=20, random_state=1)
15 tree.fit(X_train, y_train)
16 from sklearn import metrics
17 y_train_pred1 = tree.predict(X_train)
```

Run: IE598\_F19\_HW2

Optimal k is: {'n\_neighbors': 19}  
Optimal accuracy score is: 0.6571428571428571  
My name is Shixue Feng  
My NetID is: shixuef2  
I hereby certify that I have read the University policy on Academic Integrity and that I am not in violation.  
Process finished with exit code 0

The figure to show the accuracy scores corresponding to each k:

