```
# -*- coding: utf-8 -*-
"""
################################################################################
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# 目的：学习xgboost的plot_importance函数
################################################################################
"""
### load module
import matplotlib.pyplot as plt
from sklearn.datasets import load_digits ··············# 载入数据
from sklearn.model_selection import train_test_split ··# 数据分割
from xgboost import XGBClassifier ·····················# 载入模型
from xgboost import plot_importance ···················# 特征权重
from sklearn.metrics import accuracy_score ···········# 模型评估

### load datasets
digits = load_digits() ·····························# 载入mnist数据集

### data analysis
print(digits.data.shape) ····························# 打印输入空间维度
print(digits.target.shape) ··························# 打印输出空间维度

### data split
x_train,x_test,y_train,y_test = train_test_split(digits.data, ·····
·····································digits.target,
·····································test_size = 0.3, ··# 测试集占30%
·····································random_state = 33)# 随机种子
### fit model for train set
model = XGBClassifier()
model.fit(x_train,y_train)

### make prediction for test data
y_pred = model.predict(x_test)

### model evaluate
accuracy = accuracy_score(y_test,y_pred)
print("accuarcy: %.2f%%" % (accuracy*100.0))

### plot feature importance
fig,ax = plt.subplots(figsize=(15,15))
plot_importance(model,
···············height=0.5,
···············ax=ax,
···············max_num_features=64)
plt.show()

"""
95.0%
"""
```