K-means.py：

import matplotlib.pyplot as plt

import numpy as np

import pandas as pd

import seaborn as sns

import tensorflow as tf

num\_vectors = 1000

num\_clusters = 3

num\_steps = 100

vector\_values = []

for i in range(num\_vectors):

if np.random.random() > 0.5:

vector\_values.append([np.random.normal(0.5, 0.6),

np.random.normal(0.3, 0.9)])

else:

vector\_values.append([np.random.normal(2.5, 0.4),

np.random.normal(0.8, 0.5)])

df = pd.DataFrame({"x": [v[0] for v in vector\_values], "y": [v[1] for v in vector\_values]})

sns.lmplot("x", "y", data=df, fit\_reg=False, size=7)

plt.show()

注意：pandas在python3才支持，然而python3里是range()不是xrange()。

