

Homework #4 Answers

Chongye Feng

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In [1]: # importing libraries
import numba
import numpy as np
import pandas as pd
from pylab import *
from mpl_toolkits.mplot3d import axes3d
from scipy.optimize import minimize

# setting the random seed
np.random.seed(0)
```

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In [2]: def show_correlation(xs,ys):
plt.figure()
plt.scatter(xs,ys,s=0.5)
r = [np.min([np.min(xs),np.min(ys)]),np.max([np.max(xs),np.max(ys)])]
plt.plot(r,r,'r')
plt.xlabel("Predictions")
plt.ylabel("Ground truth")
corr=np.corrcoef([xs,ys])[1,0]
print("Correlation coefficient:",corr)
```

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In [3]: import time

def timeit(func):
    def wrapper(*args, **kwargs):
        start_time = time.time()
        result = func(*args, **kwargs)
        end_time = time.time()
        elapsed_time = end_time - start_time
        print("Elapsed time: {:.6f} seconds".format(elapsed_time))
        return result
    return wrapper
```