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Regression

import pandas as pd

import numpy as np

data=pd.read\_csv('/home/admin1/1nt18is072\_insha/regression.csv')

x1=data['X'].values

y1=data['Y'].values

X=np.array(list(zip(x1)))

Y=np.array(list(zip(y1)))

import matplotlib.pyplot as plt

import scipy.stats

r=scipy.stats.pearsonr(x1, y1)[0]

std\_x=np.std(x1)

std\_y=np.std(y1)

m = r \*(std\_y/std\_x)

C = np.mean(y1)-m\*np.mean(x1)

Y\_pred = m\*(x1)+C

plt.scatter(X, Y)

plt.plot(X, Y\_pred, color="red")

plt.show()

sub=((y1-Y\_pred)\*\*2)

sse=sum(sub)

sse

mean\_y = np.mean(y1)

sub1= ((Y\_pred - mean\_y)\*\*2)

ssr = sum(sub1)

ssr

sub2=((y1-mean\_y)\*\*2)

sst=sum(sub2)

sst

R=ssr/sst

R