lab-4-NFSU-classwork

March 6, 2023

[2]:
```
# define Numpy here


# define pandas here
```

Download your data set from this link: https://raw.githubusercontent.com/rishi-a/rishi-a.github.io/master/teaching-content/deep-learning-nfsu-2023/linreg-data.csv

[11]:
```
# define pandas dataframe here: (5 Marks)
df = # load the data set here
```

[12]:
```
# select only x1 and x2 column from the dataframe
# this part is done for you
x1 = df['x1'].to_numpy()
x2 = df['x2'].to_numpy()
```

[17]:
```
# Find mean of x1  without using np.mean() function (5 marks)
```

[17]:
```
-0.009903282800999998
```

[15]:
```
# Find variance of x1  without using numpy function (np.var) (5 Marks)
```

[16]:
```
# Use np.sqrt() in the variance above to get its standard deviation (5 marks)
```

[16]:
```
0.9817355521133733
```

[ ]:
```
# Write your own code to find covariance (cov) between x1 and x2 (10 Marks)

# write code for cov here

correlation = cov/(np.std(x1)*np.std(x2))
print(correlation)
```