

Summary

First, we use 'daily.csv' dataset for building our model.

I used the following features

	workingday	weathersit	temp	atemp	hum	windspeed
0	0	2	0.344167	0.363625	0.805833	0.160446
1	0	2	0.363478	0.353739	0.696087	0.248539
2	1	1	0.196364	0.189405	0.437273	0.248309
3	1	1	0.200000	0.212122	0.590435	0.160296
4	1	1	0.226957	0.229270	0.436957	0.186900
...
726	1	2	0.254167	0.226642	0.652917	0.350133
727	1	2	0.253333	0.255046	0.590000	0.155471
728	0	2	0.253333	0.242400	0.752917	0.124383
729	0	1	0.255833	0.231700	0.483333	0.350754
730	1	2	0.215833	0.223487	0.577500	0.154846

I use sklearn(Machine Learning Toolkit) to Create linear regression models and neural network models with 4 to 1 ratio training set and test set.

The same method applies to 'hourly.csv' dataset with different feature selection

	weekday	workingday	weathersit	temp	atemp	hum
0	6	0	1	0.24	0.2879	0.81
1	6	0	1	0.22	0.2727	0.80
2	6	0	1	0.22	0.2727	0.80
3	6	0	1	0.24	0.2879	0.75
4	6	0	1	0.24	0.2879	0.75
...
17374	1	1	2	0.26	0.2576	0.60
17375	1	1	2	0.26	0.2576	0.60
17376	1	1	1	0.26	0.2576	0.60
17377	1	1	1	0.26	0.2727	0.56
17378	1	1	1	0.26	0.2727	0.65

Result

The MAE value is as follows(Test dataset)

Dataset	Linear regression	Neural Networks
daily.csv	1314.9	1242.6
hourly.csv	114.7	108.9

#The project is uploaded to github following link

<https://github.com/Goldmakerkkkk/Bikeshare>