

Author: Rajkumar Ranjitham

To find following the machine learning Regression method using in r2 value

1. Multiple Linear Regression = **0.9358680970046243**

2. Support Vector machine:

#	hyper parameter	linear	rbf	poly	sigmoid
1	100	-357.0795147	-0.03023556	0.46566263	-0.05878
2	10	-2.437215037	0.055800923	0.02531239	-0.0576154
3	1	0.895077923	0.057317309	-0.0508901	-0.0574992
4	0.2	0.934828446	0.057452486	-0.0561632	-0.0574889
5	0.001	0.933025645	0.057486121	-0.0574797	-0.0574863

The SVM Regression's better model is (linear+c(0.2))=0.934828446

3. Decision Tree Regressor:

#	criterion	splitter	max_features	Score
1	squared_error	best	sqrt	0.514723
2	squared_error	best	log2	0.901928
3	squared_error	random	sqrt	0.508315
4	squared_error	random	log2	0.856363
5	friedman_mse	best	sqrt	0.392724
6	friedman_mse	best	log2	0.711926
7	friedman_mse	random	sqrt	0.643715
8	friedman_mse	random	log2	0.21106
9	absolute_error	best	sqrt	0.778934
10	absolute_error	best	log2	0.846947
11	absolute_error	random	sqrt	-1.34477
12	absolute_error	random	log2	0.730735
13	poisson	best	sqrt	-0.02955
14	poisson	best	log2	0.914188
15	poisson	random	sqrt	0.150371
16	poisson	random	log2	0.865604
17	squared_error	best	none	0.932894

The SVM Regression's better model is (squared_error+best)= 0.932894