

To find following the machine learning regression method using in r2 values

1.MULTIPLE LINEAR REGRESSION(R^2 value)=0.93586

2.SUPPORT VECTOR MACHINE:

S.NO	HYPER PARAMETER	LINEAR(R_VALUE)	RBF(NON LINEAR VALUE) (r_value)	POLY (r_value)	SIGMOID (r_value)
1	C10	-0.03964	-0.05680	-0.05366	-0.05471
2	C100	0.106468	-0.05072	-0.01980	-0.03045
3	C1000	0.780283	0.006768	0.266163	0.185068
4	C10000	0.923998	0.371895	0.812962	0.853531
5	C100000	0.930124	0.708560	0.400210	-0.843374
6	C1000000	0.930128	0.709936	-0.34944	-245.133

The SVM Regression use R^2 value(linear and hyperparameter(c=1000000))=0.930128

3.DECISION TREE:

SL.NO	CRITERION	SPLITTER	MAX FEATURES	R_VALUE
1	Squared error	Best	Auto	0.93034
2	Squared error	Best	Sqrt	0.78935
3	Squared error	Best	Log2	0.87816
4	Squared error	Random	Auto	0.90772
5	Squared error	Random	sqrt	0.76125
6	Squared error	Random	Log2	-0.60589
7	friedman_mse	Best	Auto	0.915110
8	friedman_mse	Best	Sqrt	0.690565
9	friedman_mse	Best	Log2	0.835716
10	friedman_mse	Random	Auto	0.932376
11	friedman_mse	Random	Sqrt	0.150596
12	friedman_mse	Random	Log2	-1.07950
13	absolute_error	Best	Auto	0.930570
14	absolute_error	Best	Sqrt	0.729335
15	absolute_error	Best	Log2	0.575456
16	absolute_error	Random	Auto	0.900319

17	absolute_error	Random	Sqrt	0.297896
18	absolute_error	Random	Log2	0.512423
19	Poisson	Best	Auto	0.916220
20	Poisson	Best	Sqrt	0.590516
21	Poisson	Best	Log2	0.406059
22	Poisson	Random	Auto	0.956182
23	Poisson	Random	Sqrt	0.750900
24	poisson	Random	Log2	0.371903

The **Decision Tree** Regression use R^2 Value (Poisson,Random,Auto)=0.956182