

To find following the machine learning regression method using r2 value

### 1.MULTIPLE LINEAR REGRESSION

SL.NO	LINEAR (r value)
1	0.93

the Multiple Linear REGRESSION use R2 value=0.93

### 2. SUPPORT VECTOR MACHINE:

SL.NO	HYPER PARAMETER	LINEAR (r value)	RBF(NON LINEAR) (r value)	POLY (r value)	SIGMOID (r value)
1	.....	0.89	-0.057	-0.057	0.005
2	C10	-0.039	-0.056	-0.053	-0.054
3	C100	0.106	-0.05	-0.019	-0.03
4	C500	0.59	-0.024	0.114	0.07
5	C1000	0.78	0.006	0.26	0.185
6	C2000	0.87	0.067	0.48	0.39
7	C3000	0.89	0.123	0.63	0.59

the SVM REGRESSION use R2 value( liner and hyper parameter=0.89,c3000=0.89

### 3. DECISION TREE:

SL.NO	CRITERION		SPLITTER	R VALUE
1	friedman_mse		Random	0.71
2	friedman_mse		best	0.9
3	mse		Random	0.93
4	mse		best	0.93
5	mae		Random	0.87
6	mae		best	0.95
SL.NO	CRITERION	MAX FEATURES	SPLITTER	R VALUE
7	mse	auto	Random	0.9
8	mse	auto	best	0.91
9	mse	sqrt	Random	0.17
10	mse	sqrt	best	-0.29
11	mse	log2	Random	0.4
12	mse	log2	best	0.74
13	mae	auto	Random	0.88

14	mae	auto	best	0.95
15	mae	sqrt	Random	0.64
16	mae	sqrt	best	0.94
17	mae	log2	Random	0.77
18	mae	log2	best	0.96
19	friedman_mse	auto	Random	0.79
20	friedman_mse	auto	best	0.89
21	friedman_mse	sqrt	Random	0.7
22	friedman_mse	sqrt	best	0.15
23	friedman_mse	log2	Random	-0.04
24	friedman_mse	log2	best	0.75

the Decision Tree REGRESSION use R2 value( 0.96),criterion=mae,splitter=best,max\_features=log2