

To find the following machine learning regression method using r2 value:

1. Support vector machine:

Hyper parameter	linear (r2 value)	poly (r2 value)	rbf (r2 value)	sigmoid (r2 value)
C=10	-0.0396	-0.0536	-0.0568	-0.0547
C=100	0.1064	-0.0198	-0.0507	-0.0304
C=1000	0.7802	0.2661	0.0067	0.1850
C=3000	0.8956	0.6370	0.1232	0.5913

The SVM regression use r2 value (linear and hyper parameter C=3000) **r2=0.8956**

2. Decision tree:

S.no	Criterion	splitter	R2 value
1.	Squared_error	Best	0.92630
2.	Squared_error	random	0.87165
3.	Friedman_mse	Best	0.90052
4.	Friedman_mse	random	0.52779
5.	Absolute_error	Best	0.95448
6.	Absolute_error	random	0.75404
7.	Poisson	Best	0.93000
8.	poisson	random	0.61180

The decision tree use r2 value (absolute_error, best)
r2=0.95448