

To find the following Machine Learning Regression r2 values:

1. MULTIPLE LINEAR REGRESSION: 0.9359

2. SUPPORT VECTOR MACHINE:

SL.No	HYPER PARAMETER	LINEAR R-VALUE	RBF (NON-LINEAR R-VALUE)	POLY (R-VALUE)	SIGMOID R-VALUE
1	C10	-0.0396	-0.0558	0.0253	-0.0576
2	C100	0.1064	-0.0302	0.4656	-0.0588
3	C500	0.5929	-0.0500	0.6207	-0.0640
4	C1000	0.7803	0.1606	0.6403	-0.0707
5	C2000	0.8768	0.2883	0.6717	-0.0845
6	C3000	0.8956	0.3951	0.6909	-0.0989

DECISION TREE:

SI.No	CRITERION	MAX. FEATURES	SPLITTER	R_VALUE
1	squared_error	default=None	best	0.9226
2	squared_error	default=None	random	0.8663
3	squared_error	sqrt	best	0.6293
4	squared_error	sqrt	random	0.3217
5	squared_error	log2	best	0.8255
6	squared_error	log2	random	0.7667
7	poisson	default=None	best	0.9252
8	poisson	default=None	random	0.7923
9	poisson	sqrt	best	0.4567
10	poisson	sqrt	random	0.4419
11	poisson	log2	best	0.6558
12	poisson	log2	random	0.4699
13	Mae(Mean absolute_error)	default=None	best	0.9542
14	Mae(Mean absolute_error)	default=None	random	0.9457
15	Mae(Mean absolute_error)	sqrt	best	0.8702
16	Mae(Mean absolute_error)	sqrt	random	0.6647
17	Mae(Mean absolute_error)	log2	best	0.6207
18	Mae(Mean absolute_error)	log2	random	0.8868
19	friedman_mse	default=None	best	0.9323
20	friedman_mse	default=None	random	0.8655
21	friedman_mse	sqrt	best	0.0570
22	friedman_mse	sqrt	random	0.8697
23	friedman_mse	log2	best	0.8619
24	friedman_mse	log2	random	0.8846

RANDOM FOREST:

Sl.No	CRITERION	MAX. FEATURES	SPLITTER	R_VALUE
1	squared_error	default=None	best	0.9460
2	squared_error	sqrt	best	0.7592
3	squared_error	log2	best	0.7592
4	poisson	default=None	best	0.9414
5	poisson	sqrt	best	0.7177
6	poisson	log2	best	0.7177
7	Mae(Mean absolute_error)	default=None	best	0.9459
8	Mae(Mean absolute_error)	sqrt	best	0.7857
9	Mae(Mean absolute_error)	log2	best	0.7857
10	friedman_mse	default=None	best	0.9418
11	friedman_mse	sqrt	best	0.7698
12	friedman_mse	log2	best	0.7698