

Table 1: optimal parameters

Parameter	Tree	Logit	Neural Network	k-nearest neighbor	Support vector machine
k	-	-	-	27	-
minsplit	10	-	-	-	-
minbucket	6	-	-	-	-
cp	0.0269	-	-	-	-
λ	-	0.0263	-	-	-
α	-	0.786	-	-	-
size	-	-	9	-	-
decay	-	-	0.19	-	-
maxit	-	-	1000	-	-
cost	-	-	-	-	1
γ	-	-	-	-	0.25

Checking performance using mean square error the five models from best to worst are

1. Support Vector Machine (0.1424843)
2. Neural Network(0.1429449)
3. k-nearest neighbor(0.1566099)
4. Logit(0.1627514)
5. Tree(0.1655151)
6. Naive Bayes(0.1794872)