

PS10

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Worked with Conrad

1 Part 7

From tuning model

Tree

minsplit=10;

minbucket=6;

cp=0.0269 :

f1.test.mean=0.89,

gmean.test.mean=0.686

Logit Regression

lambda=0.0263;

alpha=0.786 :

f1.test.mean=0.897

,gmean.test.mean=0.662

Neural Network

size=9;

decay=0.357;

maxit=1000 :

f1.test.mean=0.907

,gmean.test.mean=0.756

KKNN

k=23 :

f1.test.mean=0.897

,gmean.test.mean=0.747

SVM

cost=1;

gamma=0.5

: f1.test.mean=0.904,

gmean.test.mean=0.736

2 Part 8 and 9

With the optimal tuning parameters: verifying the performance on cross validated sets:

Model	f1	gmean	Out-of-sample f1	Out-of-sample gmean
Tree	0.896	0.658	0.8968421	0.6730932
Logit	0.897	0.662	0.8986422	0.6762722
Neural	0.906	0.753	0.9094500	0.7675114
KKNN	0.896	0.744	0.8975970	0.7564945
SVM	0.906	0.735	0.9048742	0.7478175
Bayes	0.884	0.726	0.8825952	0.7340489