## PS10

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## April 2018

## 1 Introduction

 $[ Optimal\ Parameters ] \\ print(tunedModel.trees)$ 

Tune result:

Op. pars: minsplit=23; minbucket=34; cp=0.0496

print(tunedModel.logit)

Tune result:

Op. pars: lambda=0.0263; alpha=0.786

print(tunedModel.nn)

Tune result:

Op. pars: size=9; decay=0.357; maxit=1000

print(tunedModel.nn)

Tune result:

Op. pars: size=9; decay=0.357; maxit=1000

print(tunedModel.svm)

Tune result:

Op. pars: cost=1; gamma=0.25

Table 1: Out Of Sample Prediction

	Model	f1.score	gmean.score
1	Decision Tree	0.897	0.673
2	Logistic	0.899	0.676
3	Neural Net	0.907	0.761
4	K Nearest Neighbors	0.898	0.756
5	Naive Bayes	0.884	0.726
6	Support Vector Machine	0.909	0.754