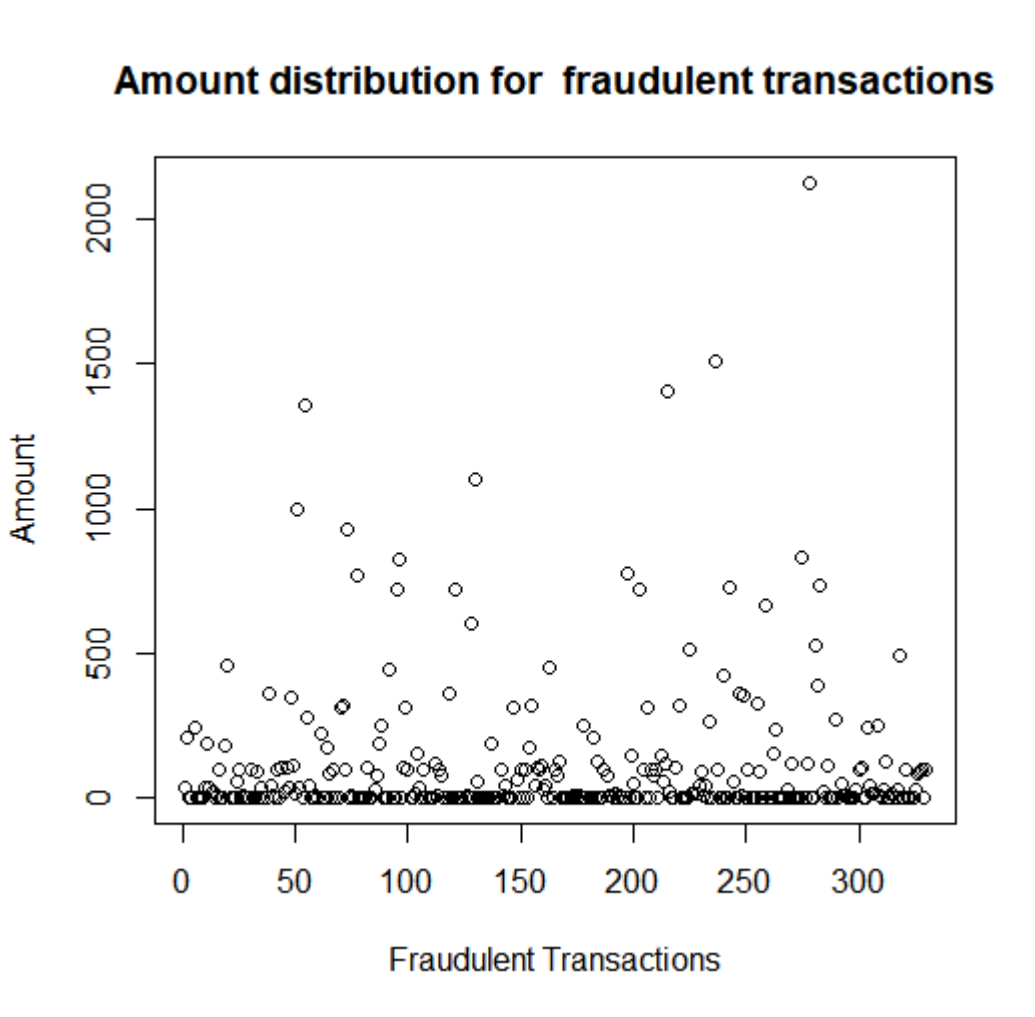
EXEBIT 2018

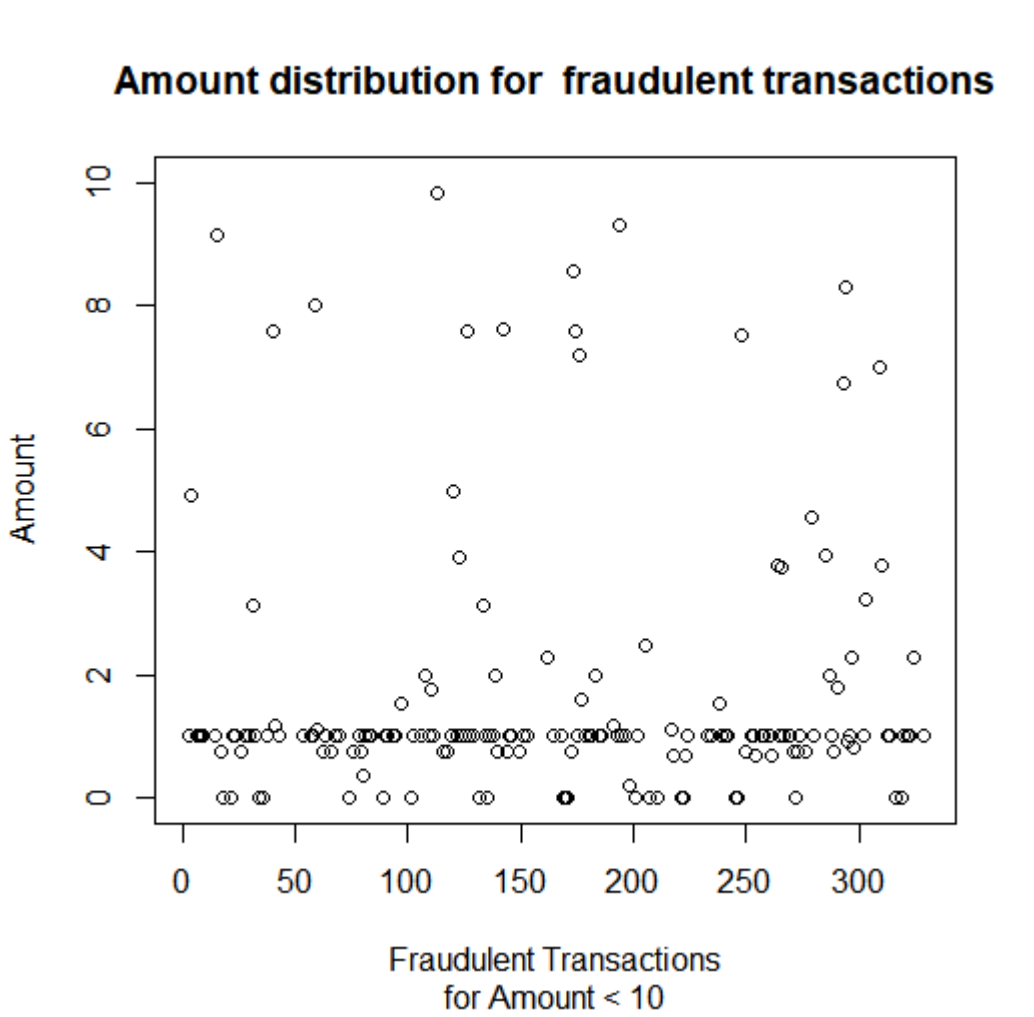
PRESENTATION BY “wannabes”

FEATURE ANALYSIS

AMOUNT

Row Labels	Count of Amount	Max of Amount	Min of Amount	Average of Amount	StdDev of Amount
0	190490	12910.93	0	87.87246018	242.1304614
1	330	2125.87	0	112.7014545	247.8399153
Grand Total	**190820**	**12910.93**	**0**	**87.91539891**	**242.1419845**

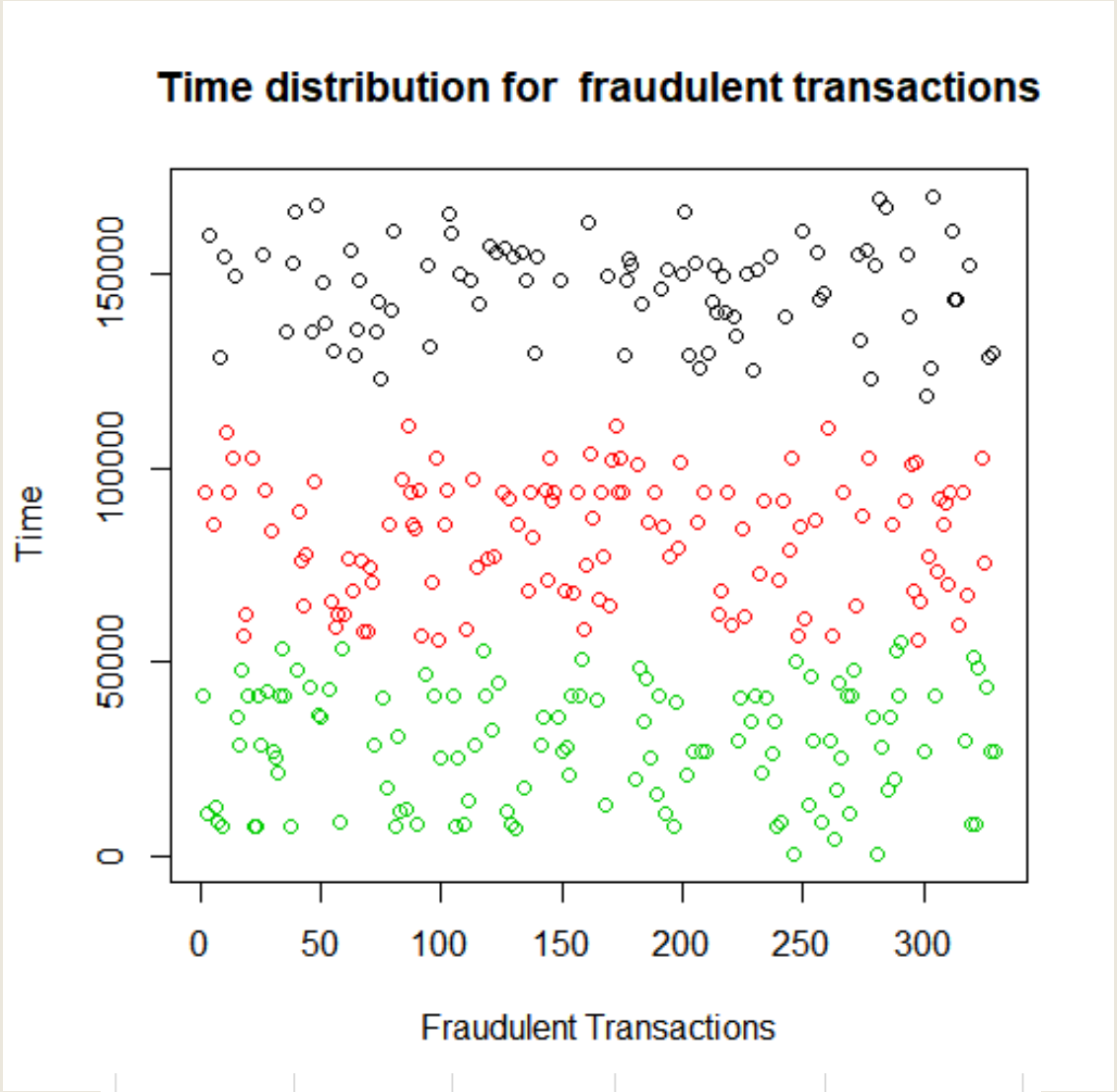




Adversarial ML - fraud transactions done to perturbate training data

FEATURE ANALYSIS

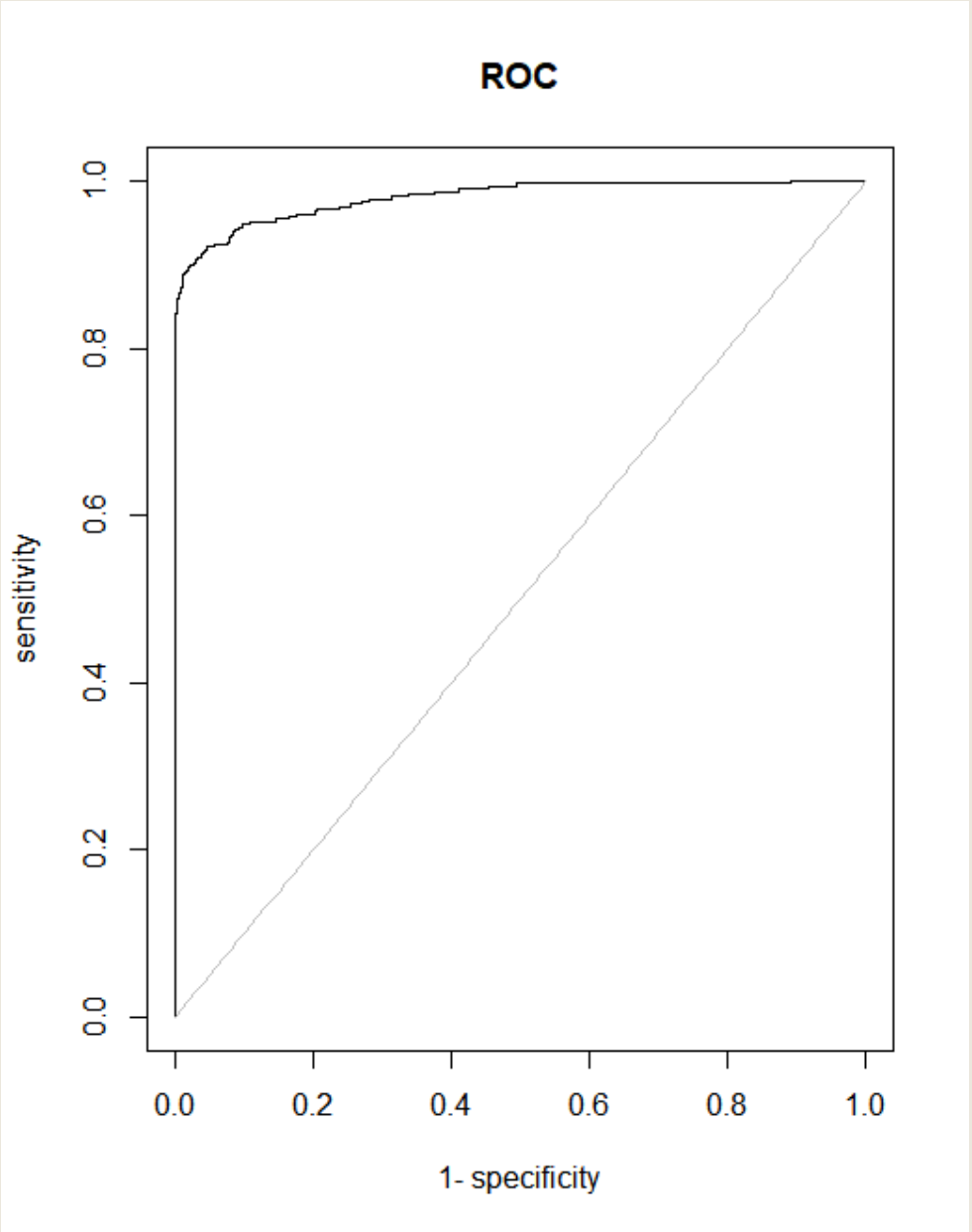
TIME



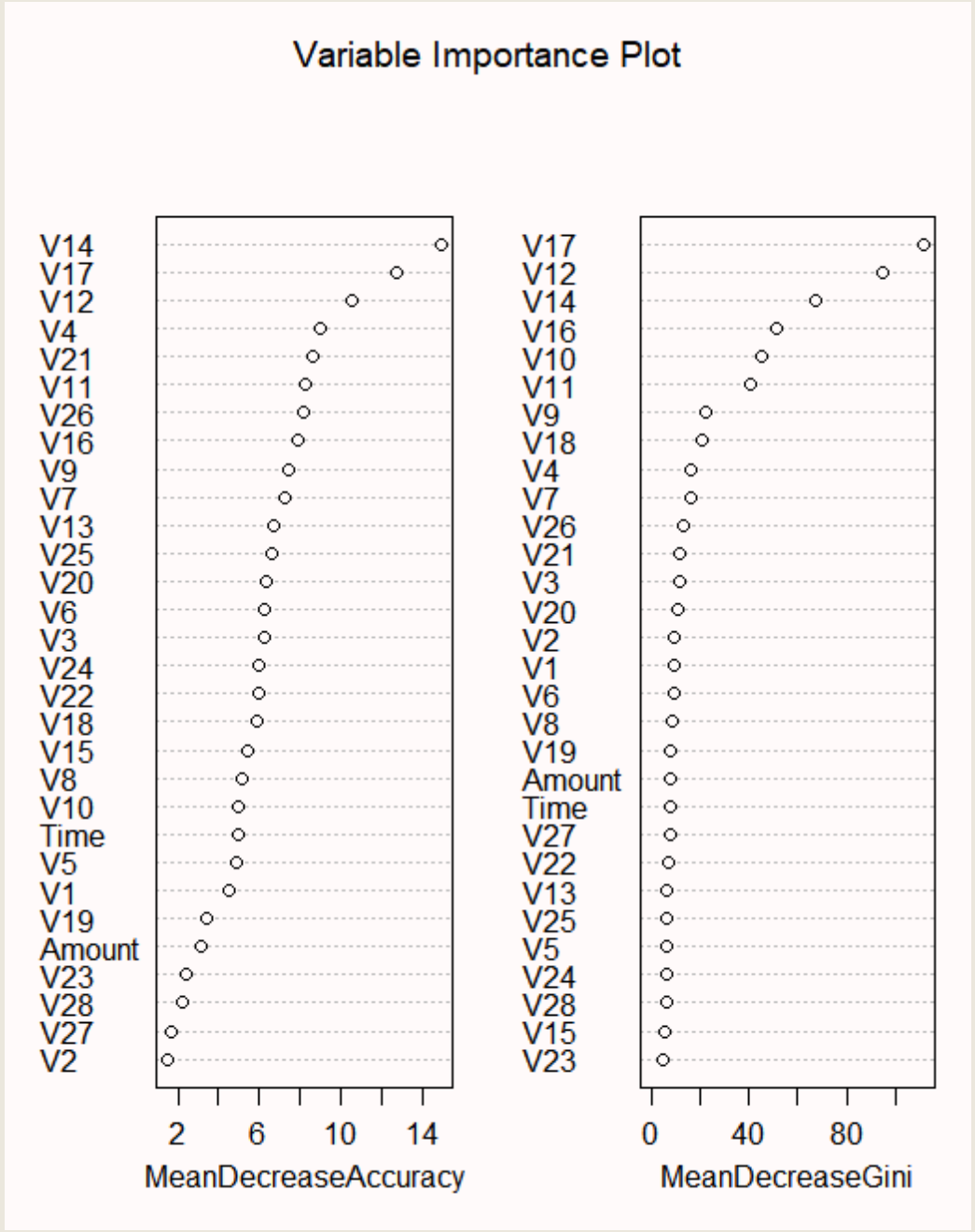
Row Labels	Min of Time	Max of Time	Average of Time	StdDev of Time
0	0	172792	94815.63093	47450.04922
1	406	169966	79322.58485	48367.57739
Grand Total	**0**	**172792**	**94788.83759**	**47455.88842**

Fraud txs. avoid extreme times

LOGISTIC REGRESSION


ROC
sensitivity
1- specificity
0.0
0.2
0.4
0.6
0.8
1.0

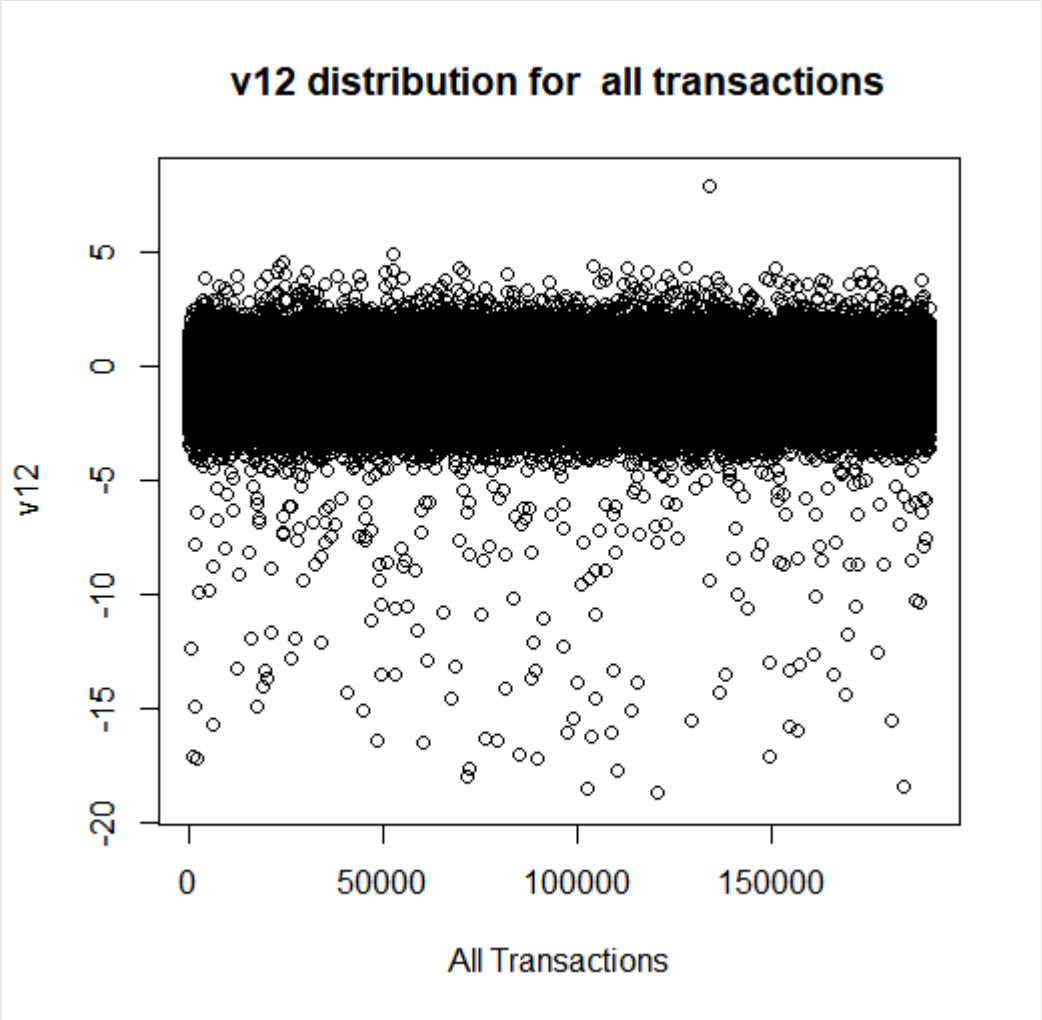
RANDOM FOREST

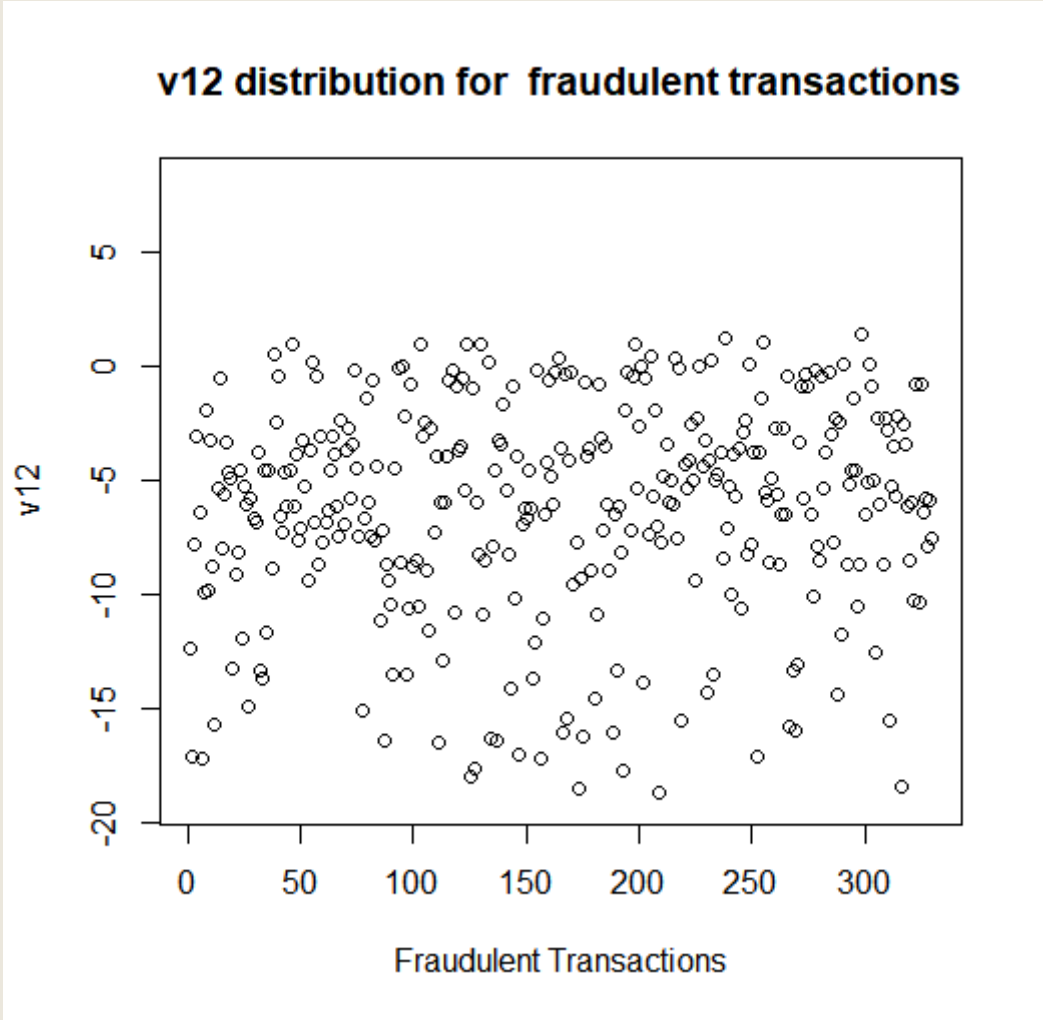


Three most important variables are V17, V14, V12

FEATURE ANALYSIS

Variable 12

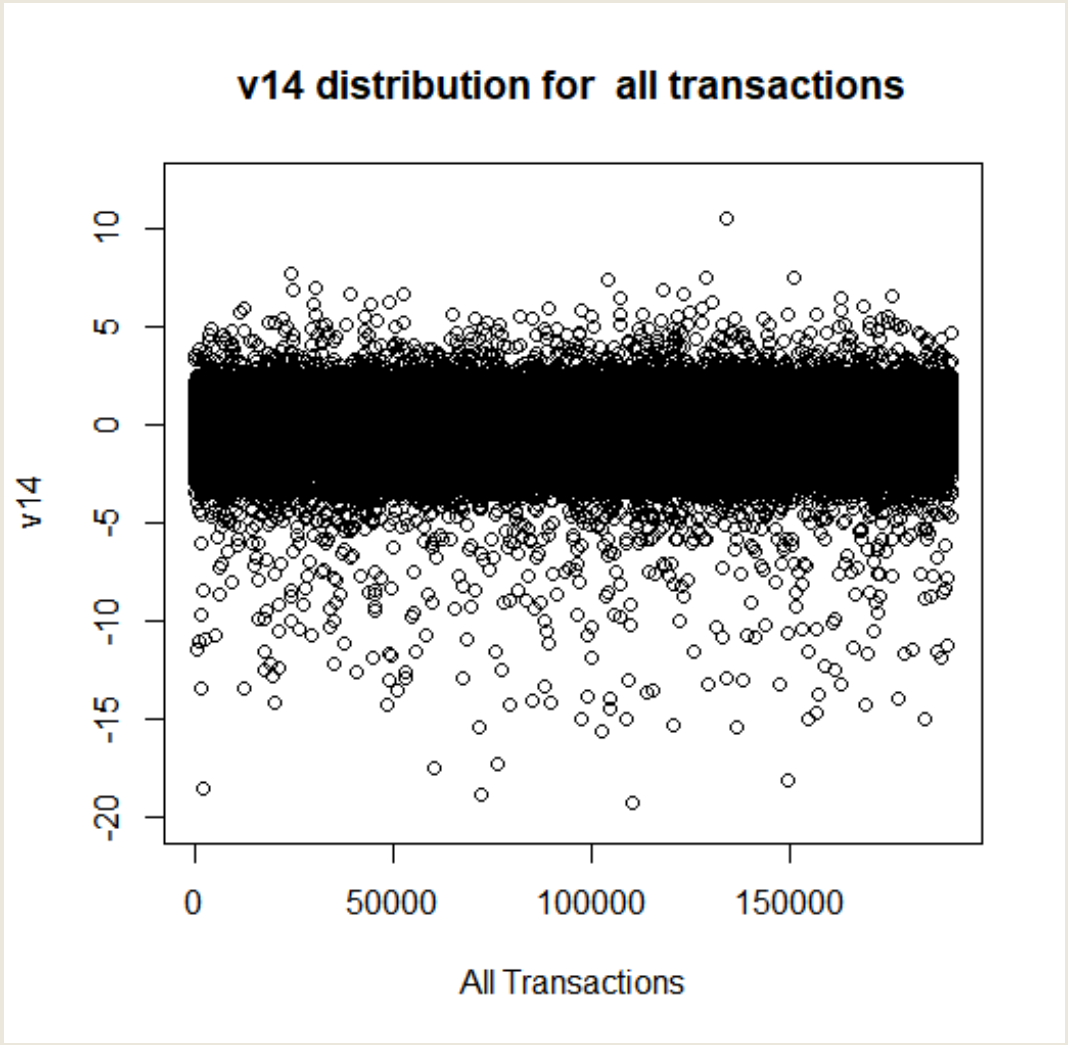


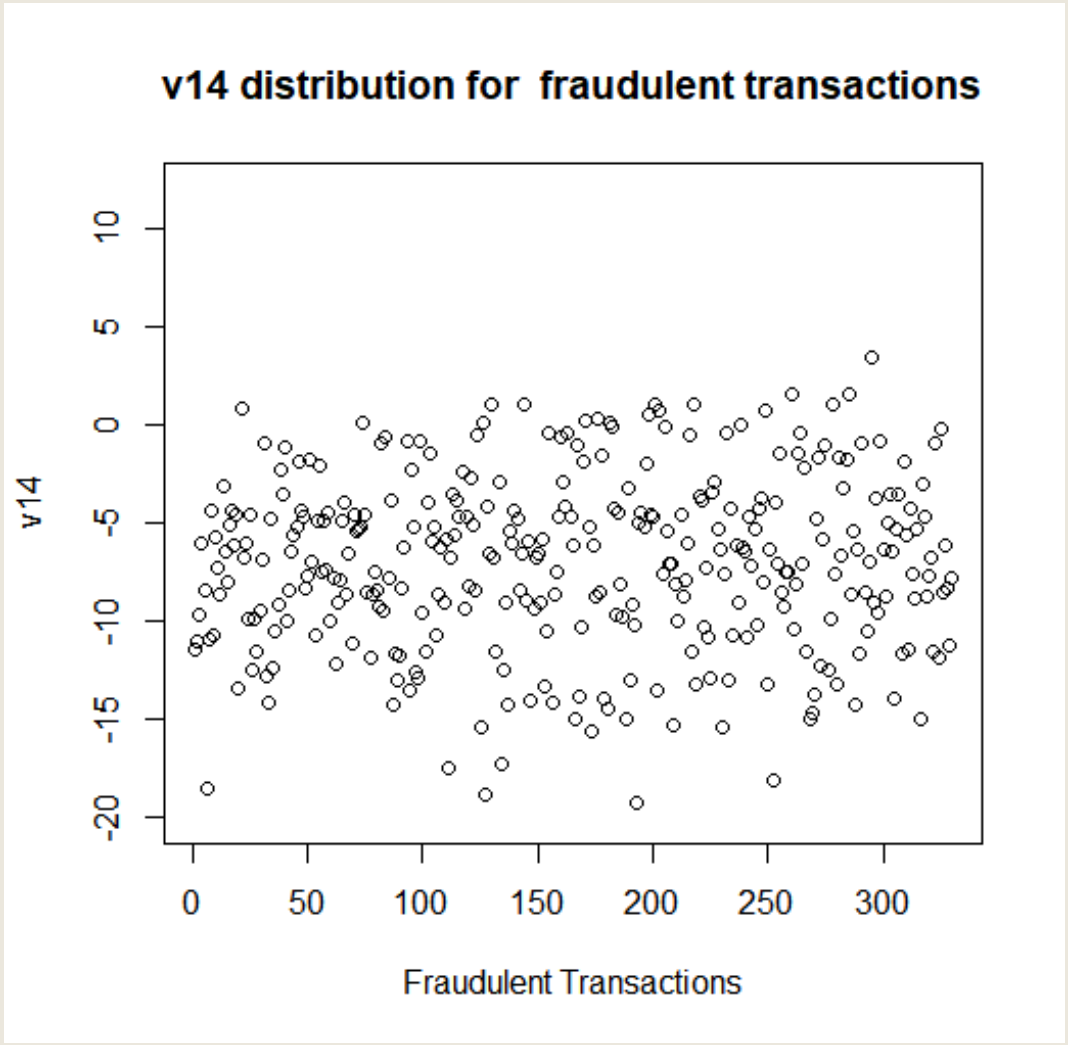


Most Fraudulent txs. are outliers!

FEATURE ANALYSIS

Variable 14

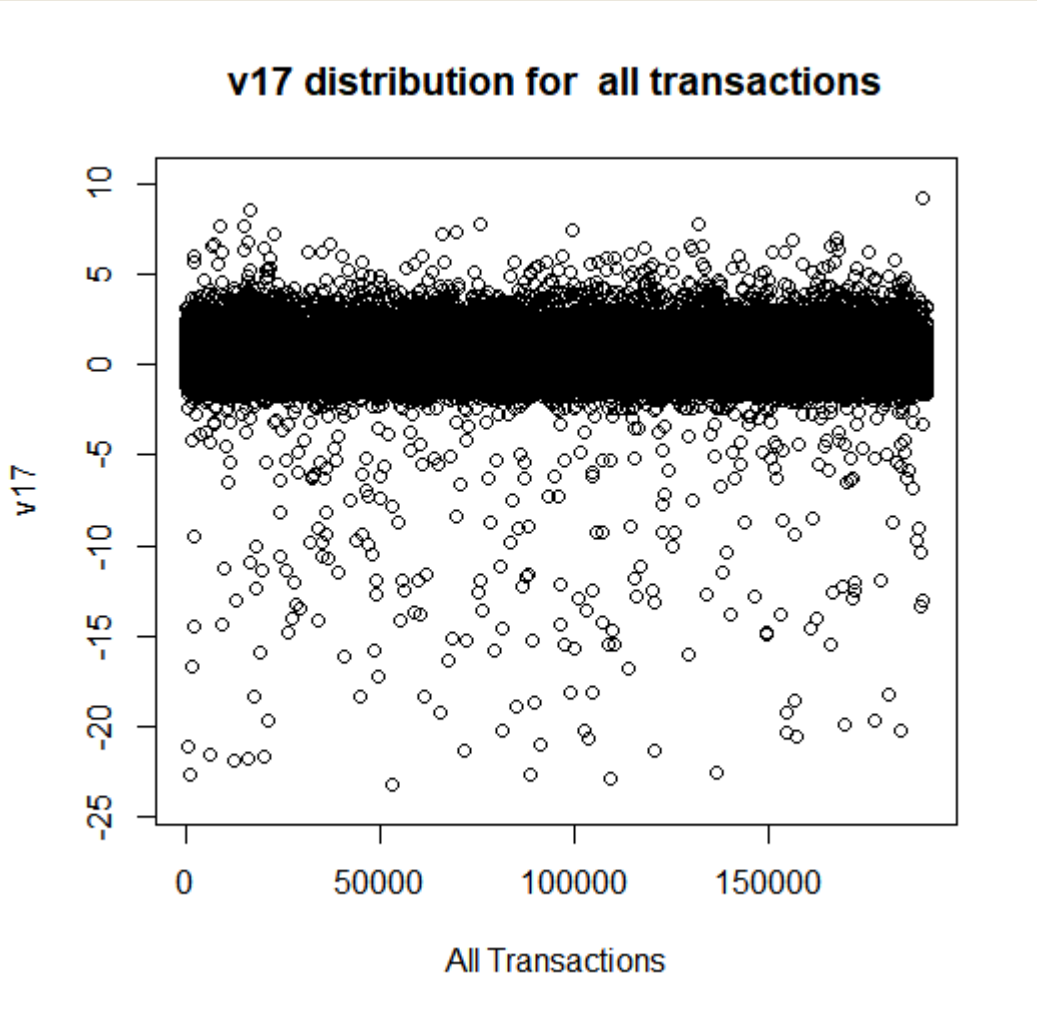


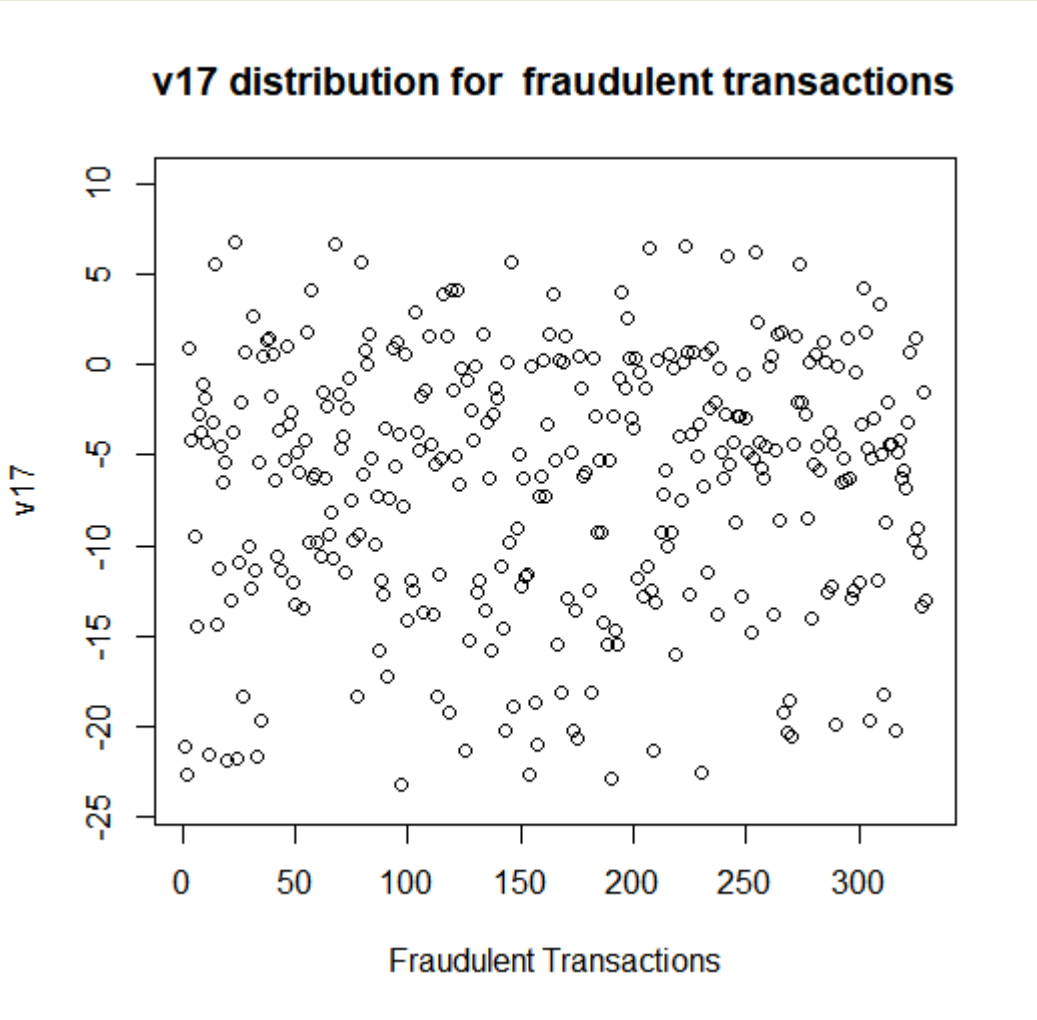


Most Fraudulent txs. are outliers!

FEATURE ANALYSIS

Variable 17





Most Fraudulent txs. are outliers!

Thus outlier detection for v17, v12, v14 can be done for online predictions

THANK YOU!