

```

1  *-----
   -*
2  User:                u63452984
3  Date:                07 January 2024
4  Time:                07:16:20
5  *-----
   -*
6  * Training Output
7  *-----
   -*
8
9
10
11
12 Variable Summary
13
14      Measurement      Frequency
15  Role      Level      Count
16
17  TARGET      BINARY      1
18
19
20
21
22
23
24
25  Obs      _KS_PROB_      PROB_      _GINI_      KS
          TARGET      TARGETLABEL      _AUR_
          CUTOFF      _KS_BIN_      CUTOFF
26
27  1      IMP_Churn      Imputed Churn      0.517      0.035      0.03
    4      0.218      0.033      0.418
28
29

```

30

31

32

33

\_VKS\_

\_VBINNED\_

34

PROB\_

\_VKS\_

KS\_PROB\_

35 Obs

TARGET

TARGETLABEL

\_VAUR\_

\_VGINI\_

V

KS

CUTOFF\_

BIN\_

CUTOFF\_

36

37 1

IMP\_Churn

Imputed Churn

0.518

0.036

0.

036

0.218

0.035

0.418

38

39

40

41

42

43

BINNED\_KS\_

44

\_KS\_PROB\_

PROB\_

45 Obs

TARGET

TARGETLABEL

\_AUR\_

\_GINI\_

KS

CUTOFF

\_KS\_BIN\_

CUTOFF

46

47 1

IMP\_Churn

Imputed Churn

0.573

0.146

0.10

3

0.212

0.1

0.215

48

49

50

51

52

53

\_VKS\_

\_VBINNED\_

54

PROB\_

\_VKS\_

KS\_PROB\_

55 Obs

TARGET

TARGETLABEL

\_VAUR\_

\_VGINI\_

V

56	KS	CUTOFF_	BIN_	CUTOFF_			
57	1	IMP_Churn	Imputed Churn	0.545	0.089	0.	
	075	0.234	0.075	0.238			
58							
59							
60							
61							
62							
63							
64							
65	Obs	TARGET	TARGETLABEL	_AUR_	_GINI_	KS	
		CUTOFF	_KS_BIN_	CUTOFF			
66							
67	1	IMP_Churn	Imputed Churn	0.979	0.958	0.86	
		0.253	0.853	0.258			
68							
69							
70							
71							
72							
73							
74							
75	Obs	TARGET	TARGETLABEL	_VAUR_	_VGINI_	V	
	KS	CUTOFF_	BIN_	CUTOFF_			
76							
77	1	IMP_Churn	Imputed Churn	0.528	0.056	0.	
	057	0.273	0.048	0.273			
78							
79							
80							
81							

```

82
83
84
85
86
87
88
89 Fit Statistics
90 Model Selection based on Valid: Misclassification Rate (_VMI
   SC_)
91
92
          Train:                      Valid:
93                               Valid
   :      Average      Train:      Average
94 Selected                               Misclassifi
   cation      Squared      Misclassification      Squared
95   Model      Model Node      Model Description      Rate
          Error              Rate              Error
96
97   Y      Boost      Gradient Boosting      0.2220
   7      0.17013      0.22135      0.17095
98      Tree2      Decision Tree 70/30      0.2232
   7      0.17180      0.22170      0.17200
99      HPDMForest      HP Forest      0.2242
   1      0.11637      0.20152      0.17554
100
101
102
103
104
105
106
107
108
109

```

```

110
111 Fit Statistics Table
112 Target: IMP_Churn
113
114 Data Role=Train
115
116 Statistics
      Boost      Tree2      HPDMForest
117
118 Train: Bin-Based Two-Way Kolmogorov-Smirnov Probability Cuto
      ff      0.22      0.42      0.26
119 Train: Kolmogorov-Smirnov Statistic
      0.10      0.03      0.86
120 Train: Average Squared Error
      0.17      0.17      0.12
121 Train: Roc Index
      0.57      0.52      0.98
122 Train: Cumulative Percent Captured Response
      15.67      12.46      42.55
123 Train: Percent Captured Response
      6.07      4.86      21.20
124 Selection Criterion: Valid: Misclassification Rate
      0.22      0.22      0.22
125 Train: Total Degrees of Freedom
      17497.00      17497.00      .
126 Train: Frequency of Classified Cases
      .      .      17497.00
127 Train: Divisor for ASE
      34994.00      34994.00      34994.00
128 Train: Gain
      56.71      24.63      325.39
129 Train: Gini Coefficient
      0.15      0.04      0.96
130 Train: Bin-Based Two-Way Kolmogorov-Smirnov Statistic
      0.10      0.03      0.85
131 Train: Kolmogorov-Smirnov Probability Cutoff

```

	0.21	0.22	0.25
132 Train: Cumulative Lift			
	1.57	1.25	4.25
133 Train: Lift			
	1.21	0.97	4.24
134 Train: Maximum Absolute Error			
	0.85	0.78	0.82
135 Train: Misclassification Rate			
	0.22	0.22	0.20
136 Train: Sum of Frequencies			
	17497.00	17497.00	17497.00
137 Train: Root Average Squared Error			
	0.41	0.41	0.34
138 Train: Cumulative Percent Response			
	35.03	27.86	95.09
139 Train: Percent Response			
	27.12	21.74	94.74
140 Train: Sum of Squared Errors			
	5953.63	6012.03	4072.11
141 Train: Sum of Case Weights Times Freq			
	34994.00	.	.
142 Train: Number of Wrong Classifications			
	.	.	3526.00
143			
144			
145 Data Role=Valid			
146			
147 Statistics			
	Boost	Tree2	HPDMForest
148			
149 Valid: Kolmogorov-Smirnov Statistic			
	0.08	0.04	0.06
150 Valid: Average Squared Error			
	0.17	0.17	0.18
151 Valid: Roc Index			
	0.55	0.52	0.53

152	Valid: Bin-Based Two-Way Kolmogorov-Smirnov Probability Cutoff	0.24	0.42	0.27
153	Valid: Cumulative Percent Captured Response	15.08	12.60	13.65
154	Valid: Percent Captured Response	5.78	4.85	5.66
155	Valid: Frequency of Classified Cases	.	.	7502.00
156	Valid: Divisor for VASE	15004.00	15004.00	15004.00
157	Valid: Gain	50.61	25.92	36.33
158	Valid: Gini Coefficient	0.09	0.04	0.06
159	Valid: Bin-Based Two-Way Kolmogorov-Smirnov Statistic	0.08	0.04	0.05
160	Valid: Kolmogorov-Smirnov Probability Cutoff	0.23	0.22	0.27
161	Valid: Cumulative Lift	1.51	1.26	1.36
162	Valid: Lift	1.16	0.97	1.13
163	Valid: Maximum Absolute Error	0.85	0.78	0.94
164	Valid: Misclassification Rate	0.22	0.22	0.22
165	Valid: Sum of Frequencies	7502.00	7502.00	7502.00
166	Valid: Root Average Squared Error	0.41	0.41	0.42
167	Valid: Cumulative Percent Response	33.69	28.16	30.49
168	Valid: Percent Response	25.87	21.72	25.33
169	Valid: Sum of Squared Errors	2564.89	2580.64	2633.75

170 Valid: Sum of Case Weights Times Freq

15004.00 . .

171 Valid: Number of Wrong Classifications

. . 1682.00

172

173

174

175

176

177

178

179

180

181

182

183 Event Classification Table

184 Model Selection based on Valid: Misclassification Rate (\_VMI  
SC\_)

185

186

Data

False

True

False

True

e

187 Model Node Model Description Role Target

Target Label Negative Negative Positive Positive

188

189 Tree2 Decision Tree 70/30 TRAIN IMP\_Churn

Imputed Churn 3828 13535 51 8

190 Tree2 Decision Tree 70/30 VALIDATE IMP\_Churn

Imputed Churn 1650 5799 25 2

191 Boost Gradient Boosting TRAIN IMP\_Churn

Imputed Churn 3808 13521 65 10

192 Boost Gradient Boosting VALIDATE IMP\_Churn



	Imputed Churn	1645	5803	21	3
3					
193	HPDMForest	HP Forest	TRAIN	IMP_Churn	
	Imputed Churn	3518	13578	8	39
3					
194	HPDMForest	HP Forest	VALIDATE	IMP_Churn	
	Imputed Churn	1639	5781	43	3
9					
195					
196					
197	*-----				
	-*				
198	* Score Output				
199	*-----				
	-*				
200					
201					
202	*-----				
	-*				
203	* Report Output				
204	*-----				
	-*				