
HBC Digital

Telecom & Internet Data Analysis Results

By Chanyu Choung





The data samples we used

<https://www.kaggle.com/blastchar/telco-customer-churn> (Source: IBM)



Data Explorer

954.59 KB

WA_Fn-UseC_-Telco-Custo...

< WA_Fn-UseC_-Telco-Customer-Churn.csv (954.59 KB)  

Detail Compact Column 10 of 21 columns

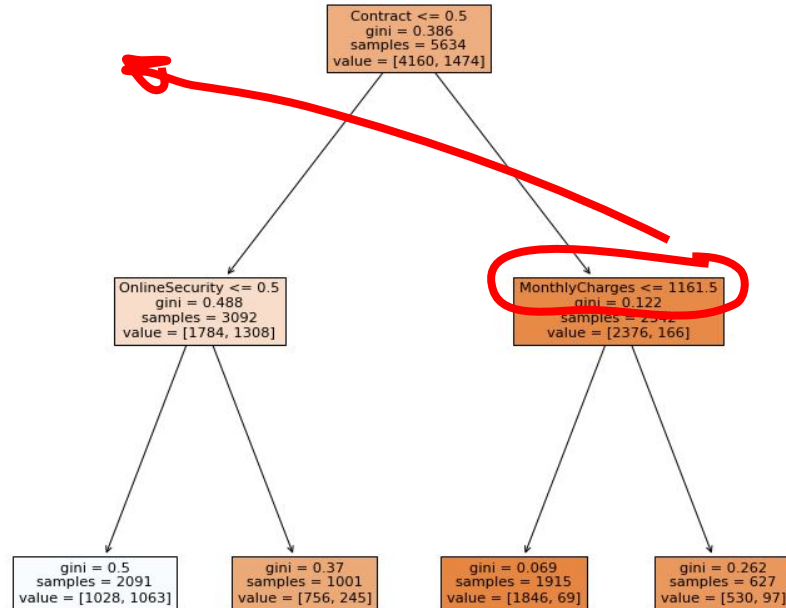
customerID	gender	SeniorCitizen	Partner	Dependents	#
Customer ID	Whether the customer is a male or a female	Whether the customer is a senior citizen or not (1, 0)	Whether the customer has a partner or not (Yes, No)	Whether the customer has dependents or not (Yes, No)	Number of calls made by the customer
7043 unique values	Male 50% Female 50%		true 0 0% false 0 0%	true 0 0% false 0 0%	
5575-GNVDE	Male	0	No	No	34
3668-QPYBK	Male	0	No	No	2
7795-CFOCW	Male	0	No	No	41
9237-HQITU	Female	0	No	No	2
9385-CDSKC	Female	0	No	No	8
1452-KIOVK	Male	0	No	Yes	22
6713-OKOMC	Female	0	No	No	16
7892-POCKP	Female	0	Yes	No	21
6388-TABGU	Male	0	No	Yes	65
9763-GRSKD	Male	0	Yes	Yes	11

From our initial approach

Outliers ruins the analysis.

70-80% of the customer base are
paying less than \$150 USD/mo.

The medians are higher due to
the high end outliers are bumping
up the average base.



The different entity groups

1. Senior group
2. Family group
3. Company group

Senior target based group

Tenure = # of months they've stayed

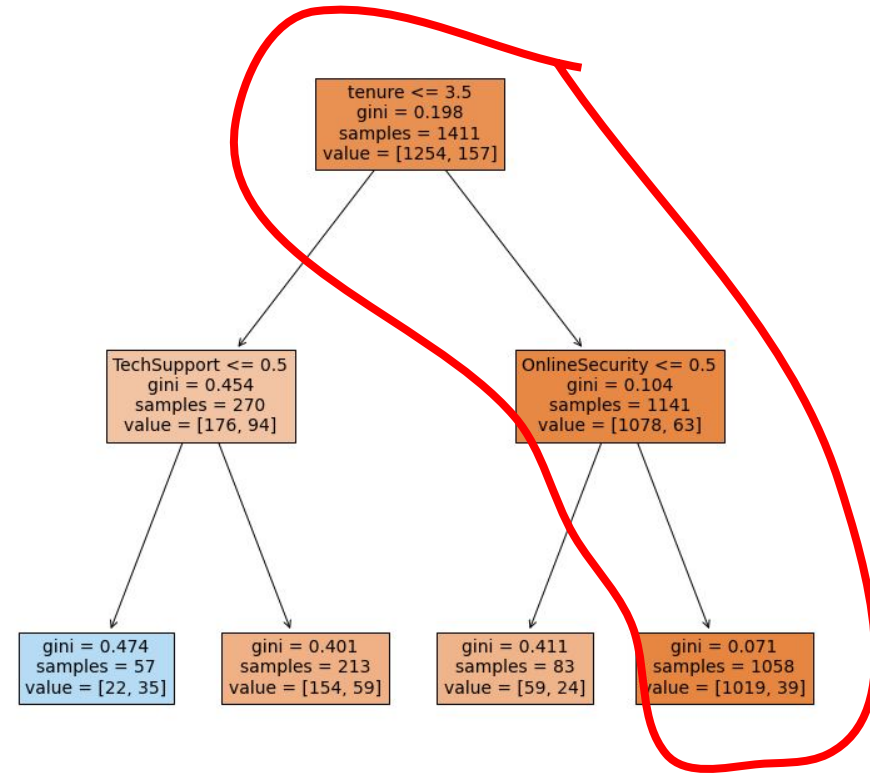
OnlineSecurity = No, No Internet, Yes

TechSupport = No, No Internet, Yes

Prediction: 88% accuracy

The majority of senior group who have been with us for over 4 months and used our online security features.

It's predicted that 97% of people are still in the service.



Family target based group

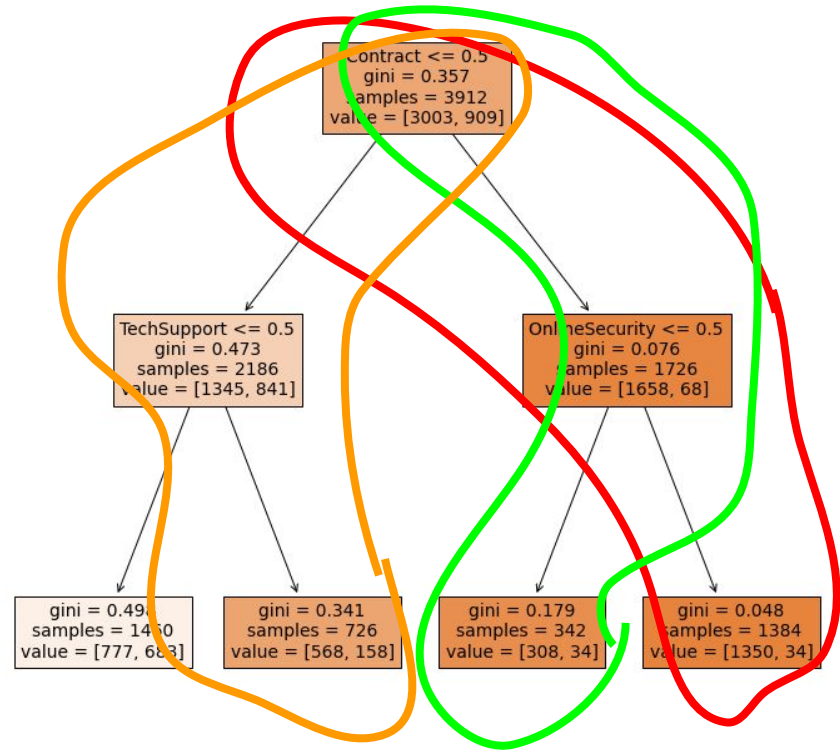
Contract = Monthly, Yearly, Bi-Yearly

OnlineSecurity = No, No Internet, Yes

TechSupport = No, No Internet, Yes

Prediction: 84% accuracy

The majority of family groups are in the service, except the groups showing dissatisfied results are the ones with no tech support service.



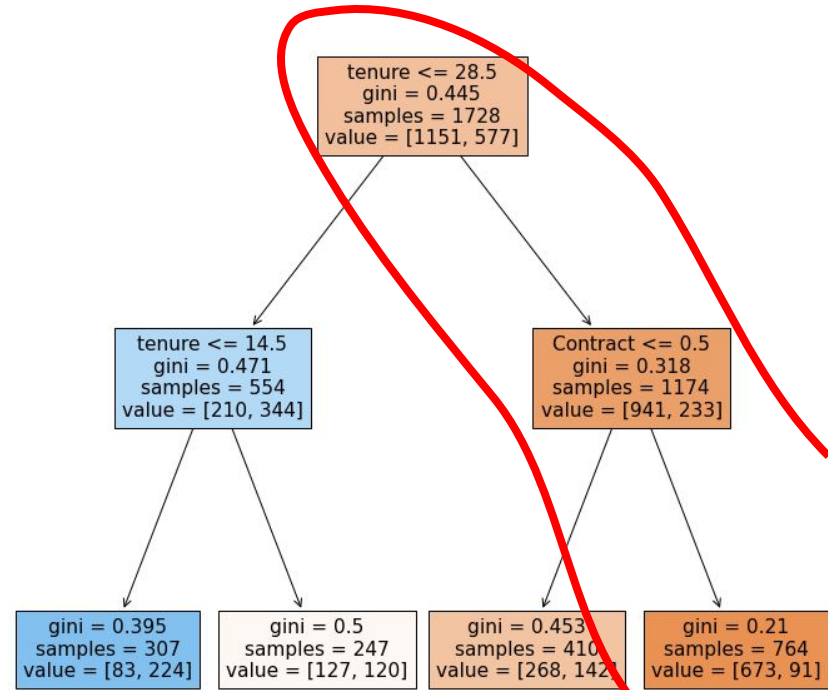
Company target based group

Contract = Monthly, Yearly, Bi-Yearly

Tenure = # of months they've stayed

Prediction: 81% accuracy

Companies or businesses that are loyal
and are still in an yearly or bi yearly
contract form are the group that won't
leave the service.



Conclusion

1. Senior group
 - Recommend the online security service.

2. Family group
 - Recommend them to use the tech support service.

3. Company group
 - Must recommend them to sign an yearly or bi-yearly service contract.