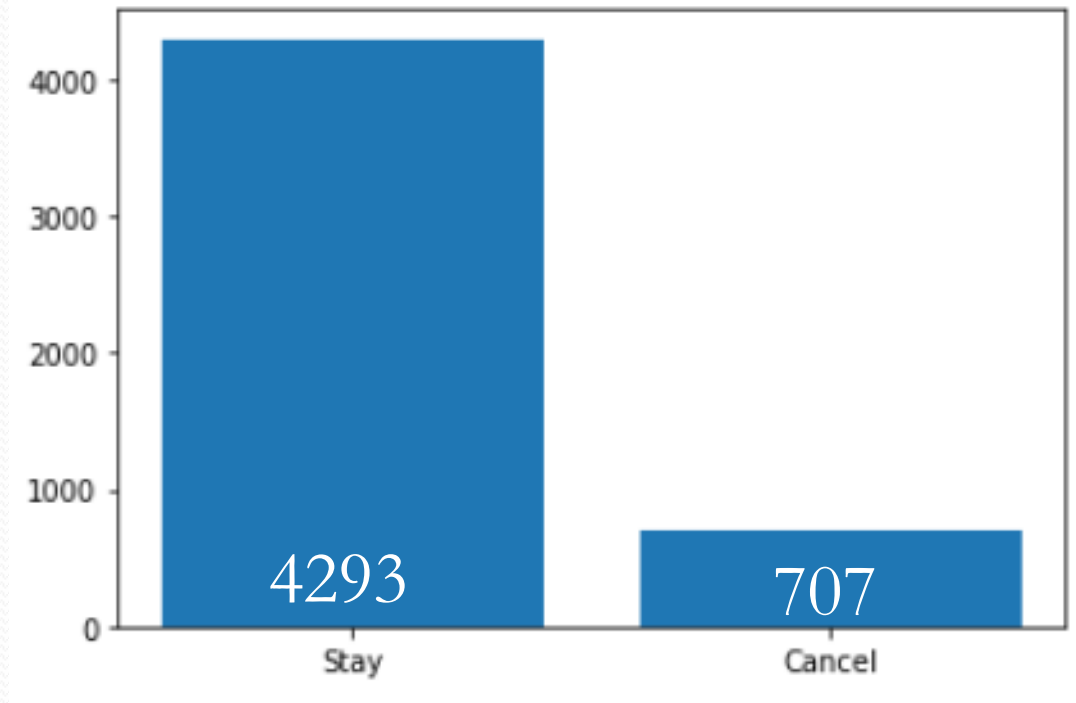


Predicting Cancellations

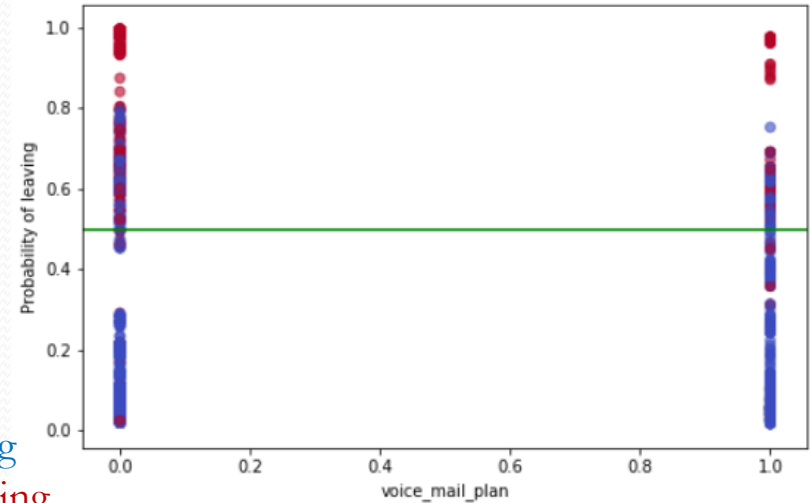
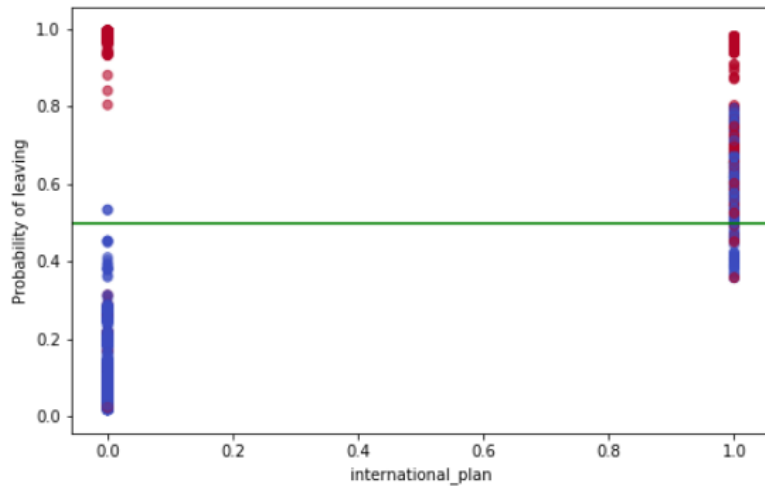
- Understand which items are most significant in causing customers to leave
- Cost/benefit analysis to figure out the best way to retain customers

Imbalanced Data

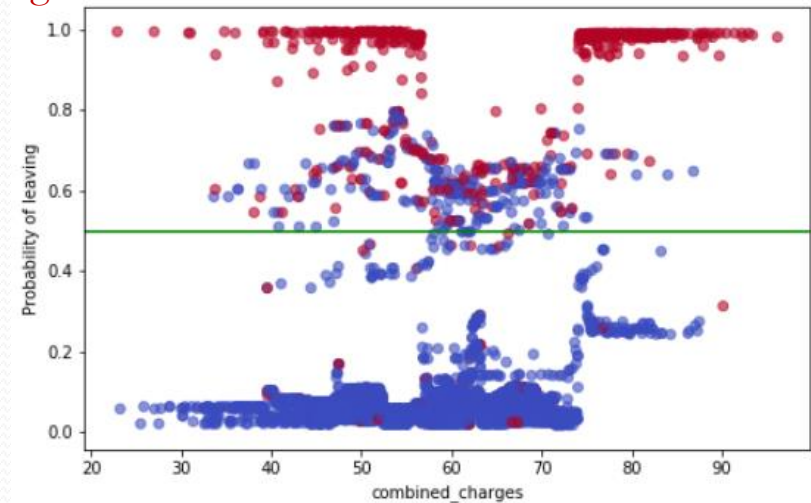
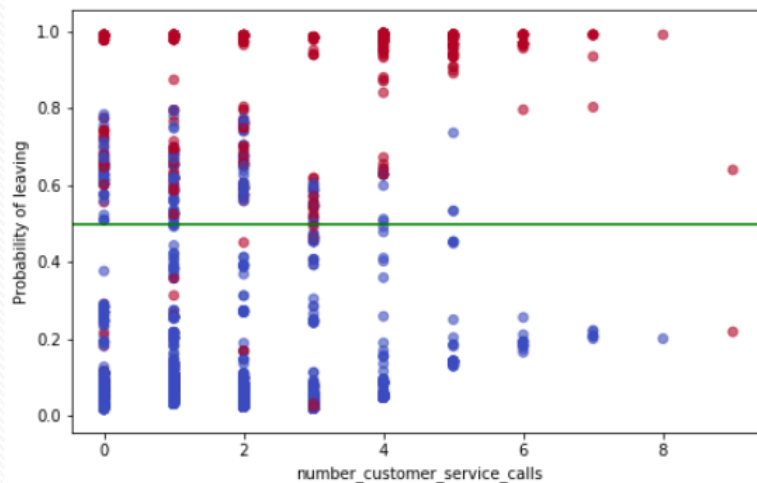
- Total Customers:
5,000
- Customers Staying:
4,293
- Customers Cancelling:
707



Most significant factors

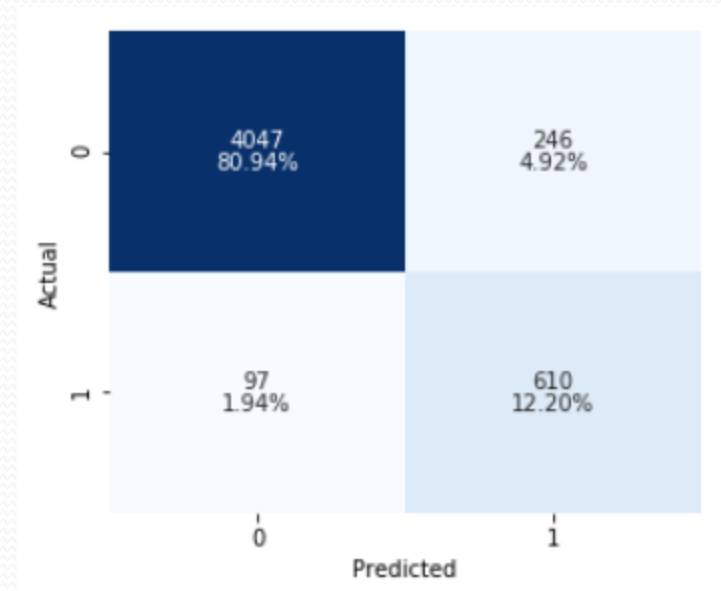


Blue = Staying
Red = Canceling



Predictions by the Numbers

- 4047 Customers correctly classified as staying
- 610 customers correctly classified as cancelling
- 246 customers incorrectly classified as leaving
- 97 customers incorrectly classified as staying



Recommendations

- Average bill = \$60
- 24 Month contract brings in \$1440
- Promotion worth = \$500
- 246 * Promotion: Loss
- 97 * 24 month contract: Loss
- 610 * (24 month contract – Promotion): Gain
- Cost / Benefit of \$310,720

Actual	0	1
	0	1
0	\$0 4047 80.94%	-\$500 246 4.92%
1	-\$1440 97 1.94%	\$940 610 12.20%
	0	1
	Predicted	

Scenarios

- Alex has a bill over \$72 a month and is planning to cancel service. Total bill over 24 months - \$1738
We offer \$500 off a new phone in exchange for a 24 month contract.
We gain \$1238 over 24 months
- Jack has a bill over \$72 a month but is not planning to cancel service. Total bill over 24 months - \$1738
We offer \$500 off a new phone in exchange for a 24 month contract.
We lose \$500 over 24 months

Further Work

- Identify the best promotion amount to retain customers
- Identify the best promotions to offer:
i.e discounted phone, discount on plan etc.

Thank you very much
for joining me!



Levi Raichik