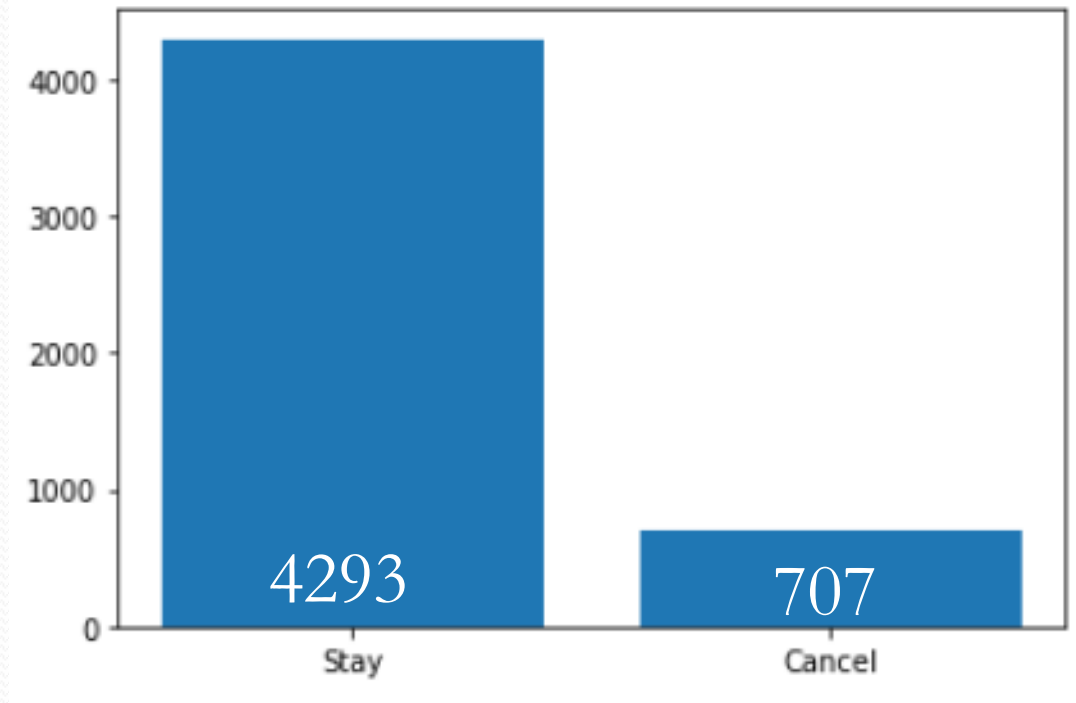


# Predicting Cancellations

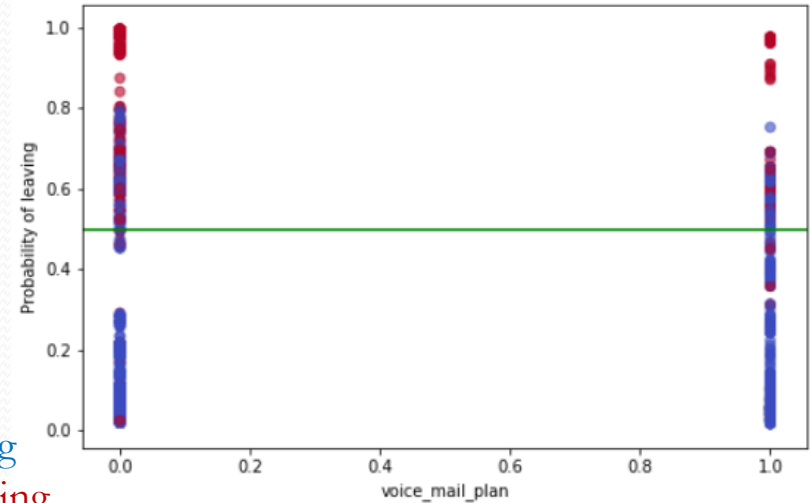
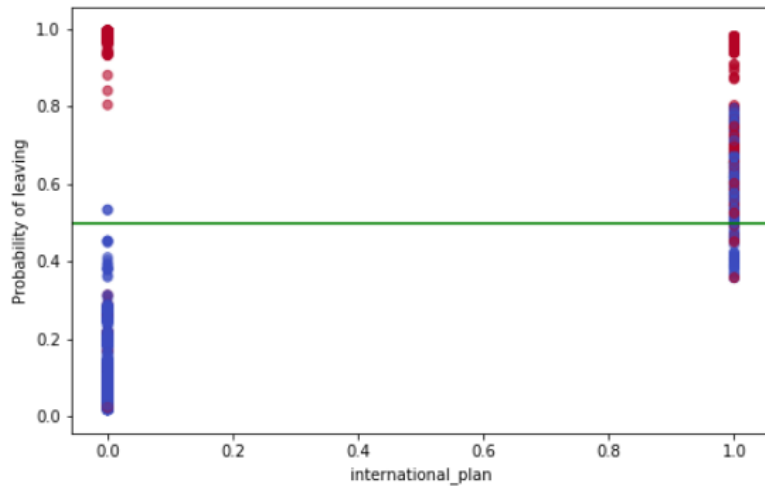
- Understand which items are most significant in causing customers to leave
- Cost/benefit analysis to figure out the best way to retain customers

# Imbalanced Data

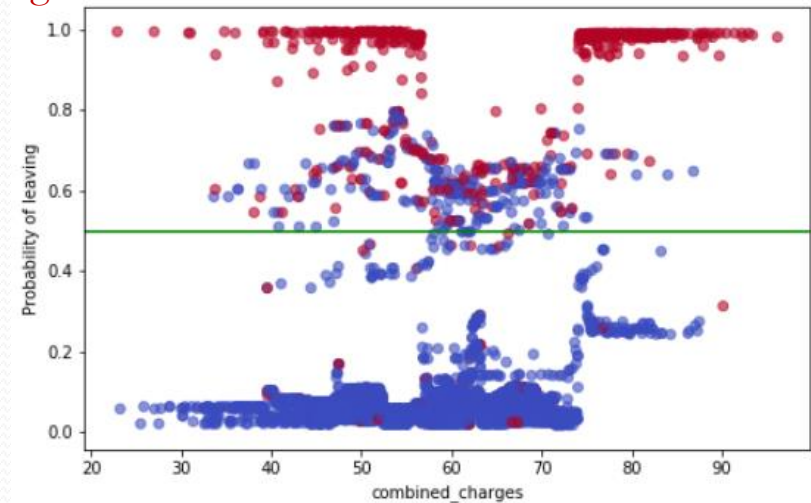
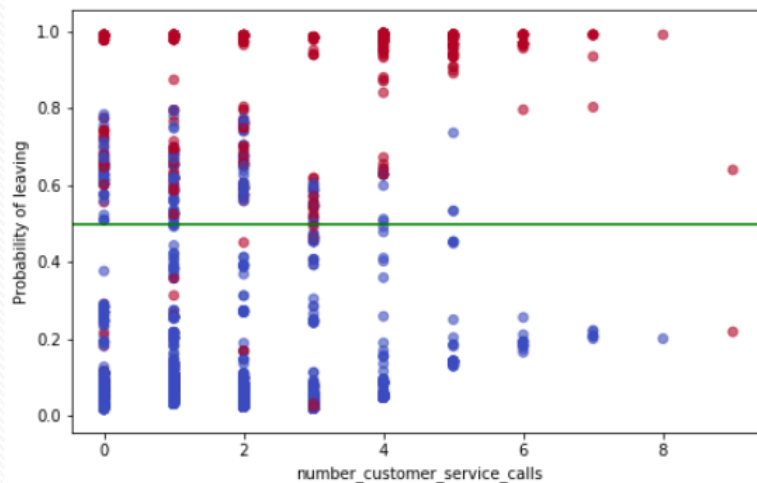
- Total Customers:  
5,000
- Customers Staying:  
4,293
- Customers Cancelling:  
707



# Most significant factors

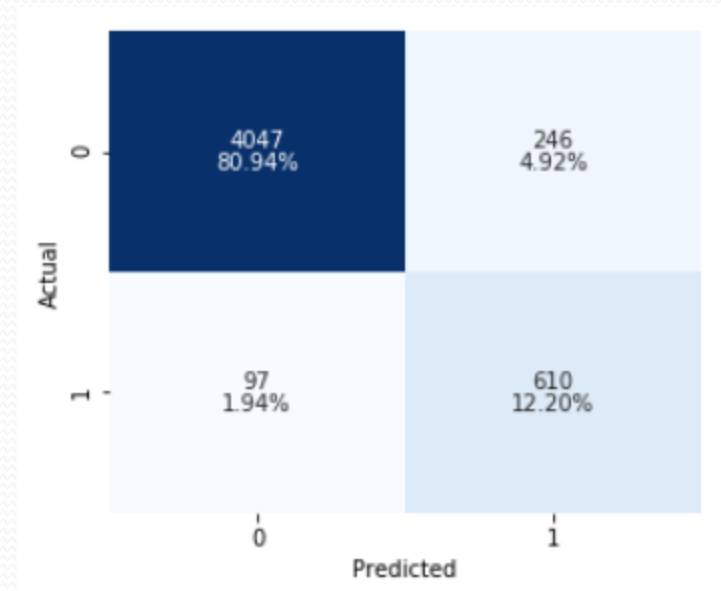


Blue = Staying  
Red = Canceling



# 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

# 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*