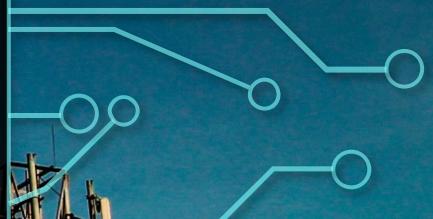




TELECOM CHURN

JOSHUA EDELSTEIN



AGENDA



1. ADDRESS
STAKEHOLDER



2. DATA
BACKGROUND



3. PREDICTIVE MODEL



4. CONCLUSION/
RECOMMENDATIONS



5. NEXT STEPS

BUSINESS QUESTION



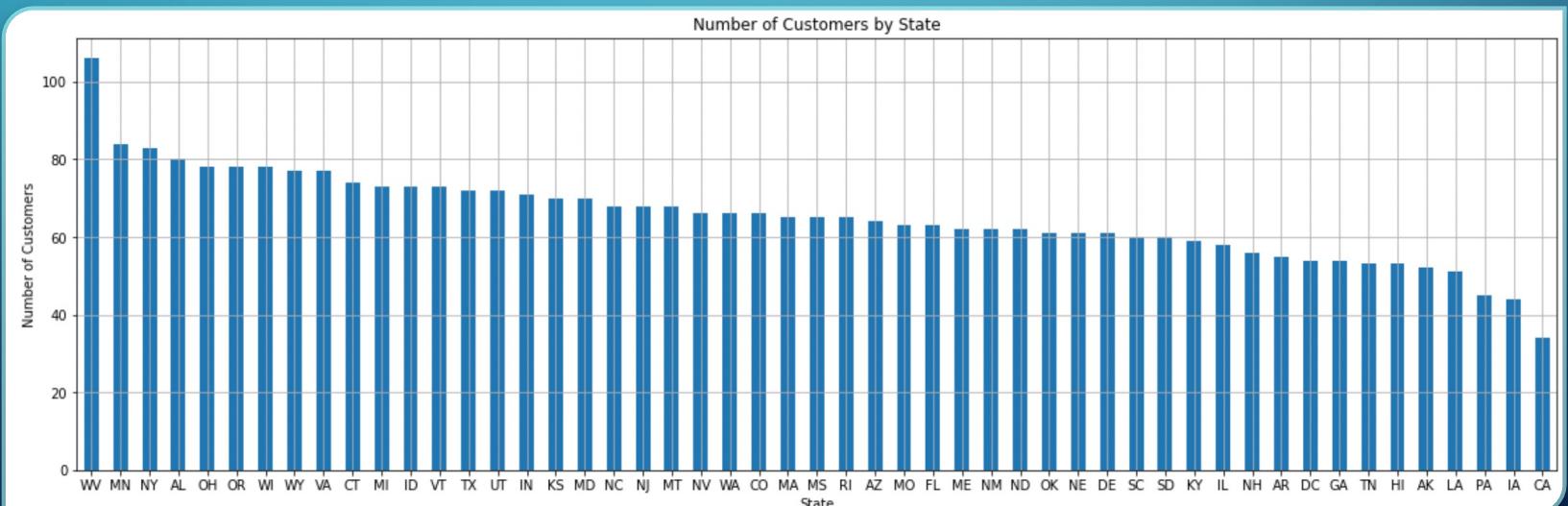
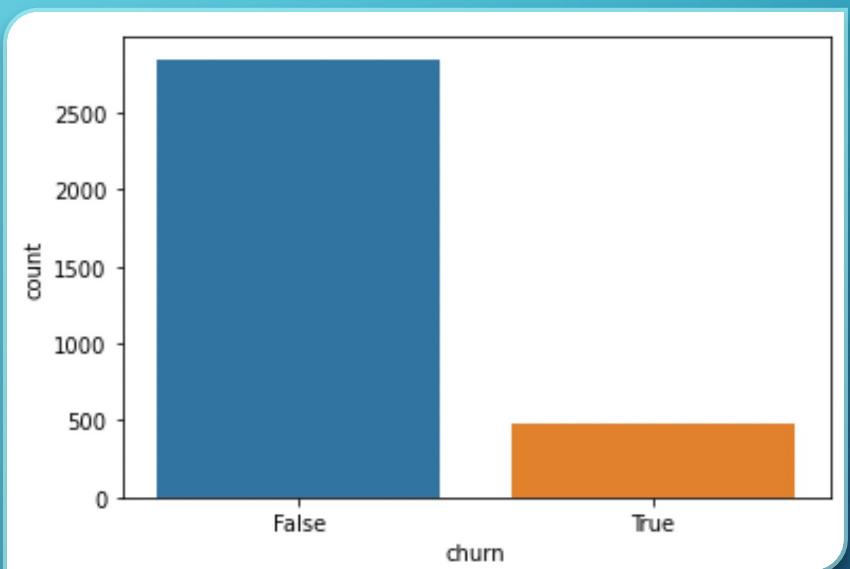
SyriaTel- How to best prevent customer churn?



Can't afford large advertising campaign

DATA UNDERSTANDING

- Over 3,000 clients from across USA
- Data from ~2010
- 14% churn rate



DATA UNDERSTANDING

- Data Information
 - Numeric
 - calls throughout the day
 - international calls
 - customer service
 - Categorical
 - state
 - international plan
 - voicemail plan



MODELING

PRECISION VS RECALL

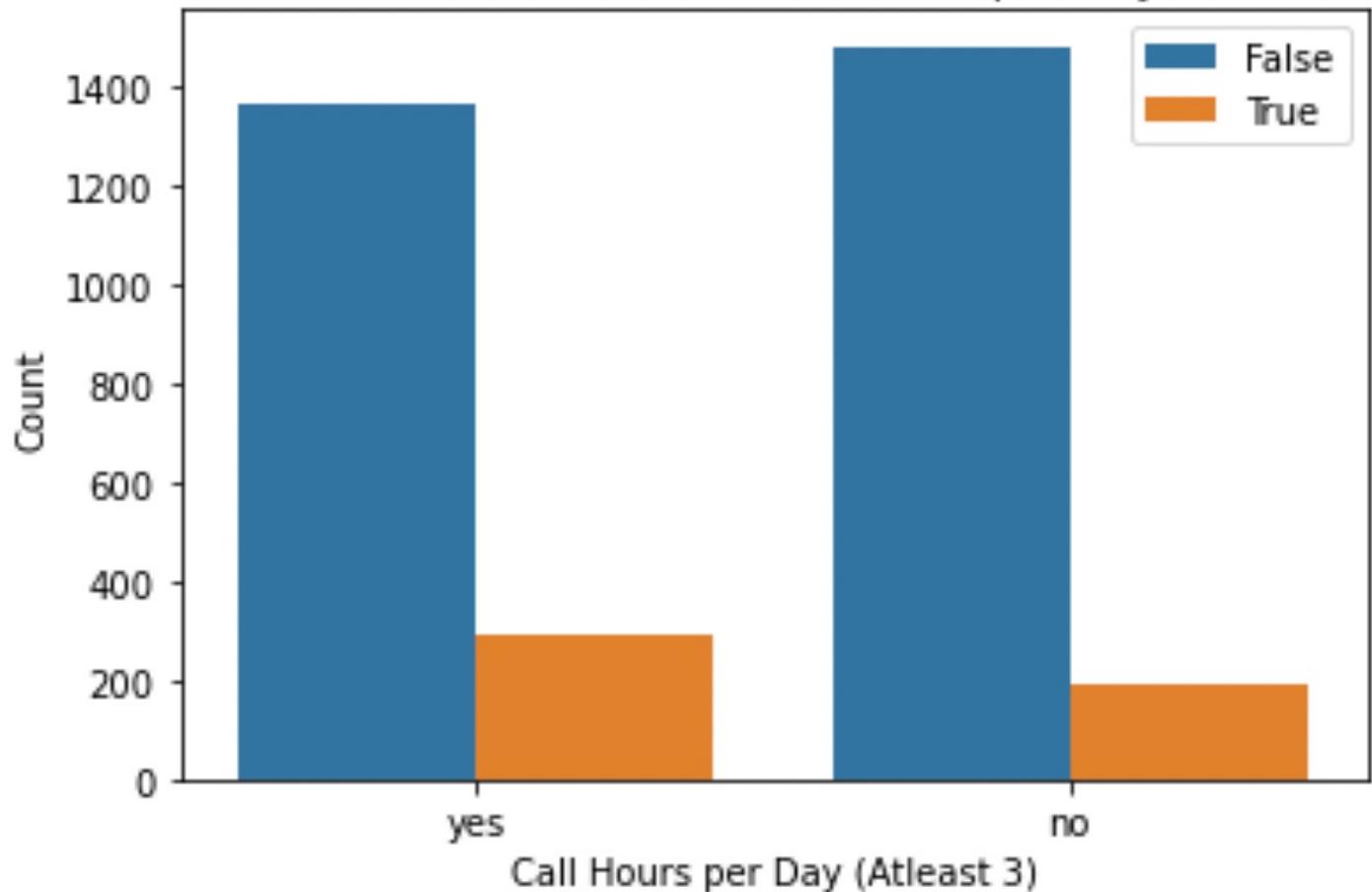
- **False Positive-** Giving away unnecessary promotional deals
 - Precision
- **False Negative-** Losing Clients
 - Recall



MOST IMPORTANT FEATURES(1)

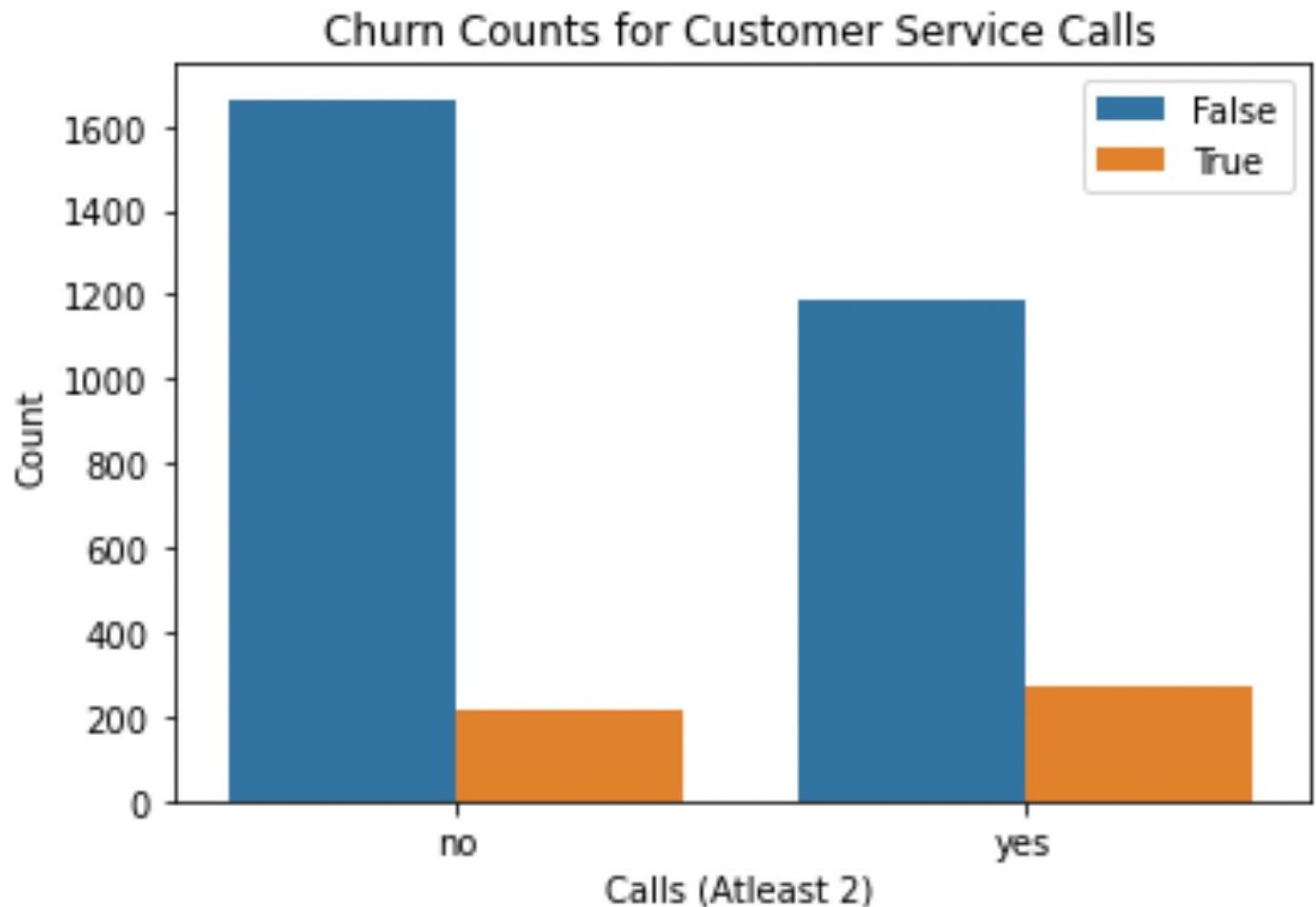
- Call Hours during the day
 - Churn is higher for those above 3 hours

Churn Counts for Call Hours per Day



MOST IMPORTANT FEATURES(2)

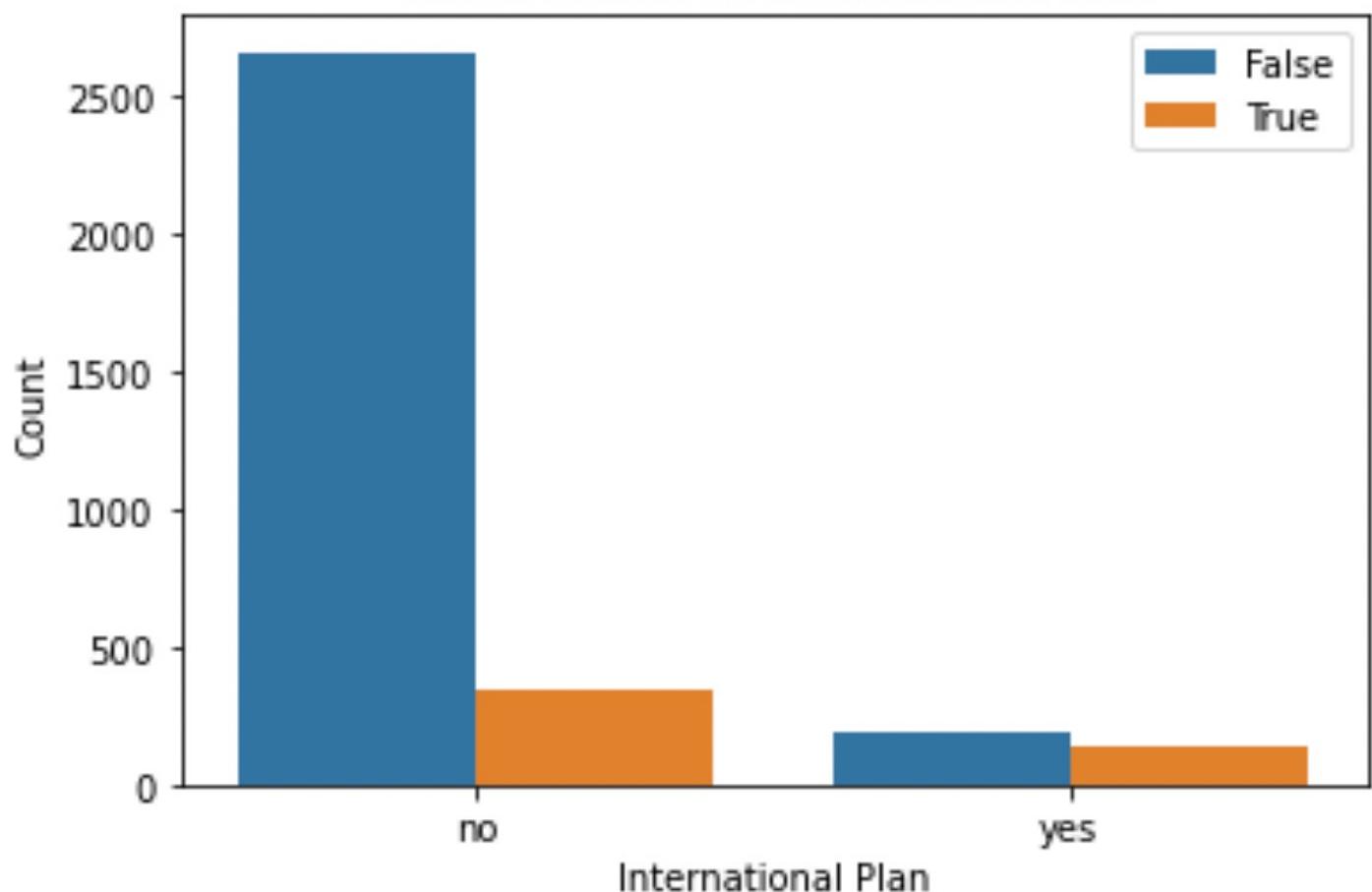
- Customer Service Calls
 - Churn is higher for those with 2 or more calls



MOST IMPORTANT FEATURES(3)

- International plan
 - Churn is lower for those without it

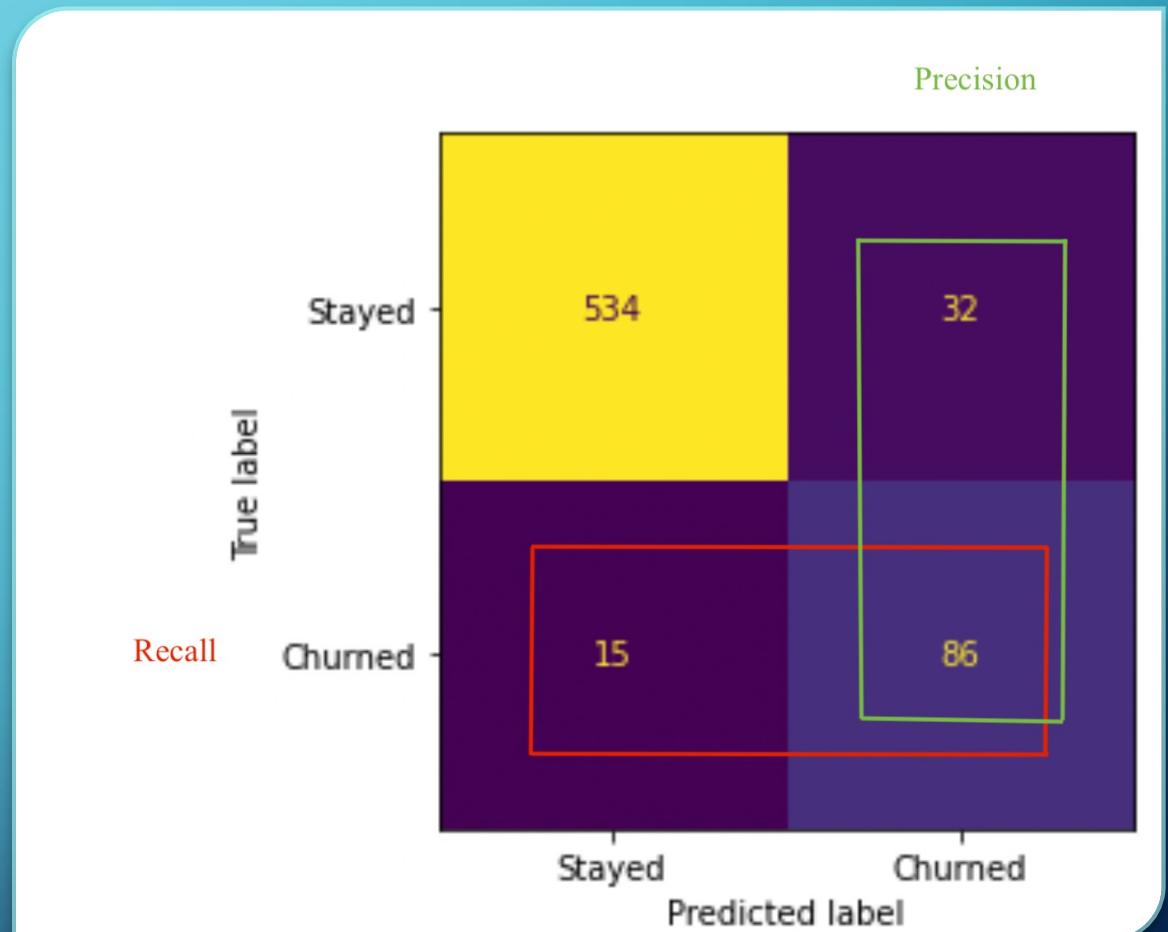
Churn Counts for International Plan



MODEL METRICS

Final Model Scoring:

- Accuracy score 93%
- Precision of 73%
- Recall of 85%
- F1-score of .79



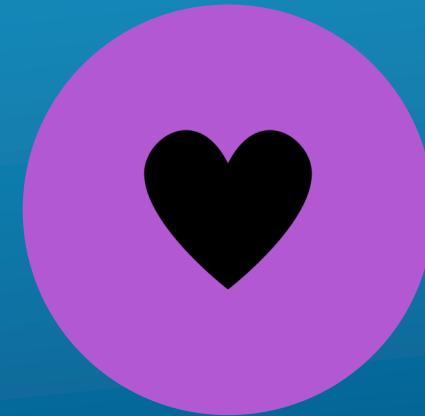
RECOMMENDATIONS



OFFER PROMOTIONAL DEALS
TO HIGH RISK CUSTOMERS



INVEST IN CUSTOMER SERVICE



CREATE BRAND LOYALTY



GOING FORWARD

- Compare different forms of promotional offers
- Analyze what creates Brand Loyalty



THANK YOU

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