

Telecommunications Customer Behavior Analysis

By Adam Pell

Outline

- Overview
- Data Understanding
- Methodology
- Results
- Conclusion

Overview

Adam Pell & Associates Data Solutions seeks to provide a data-driven answer to customer retention.

Recommendations:

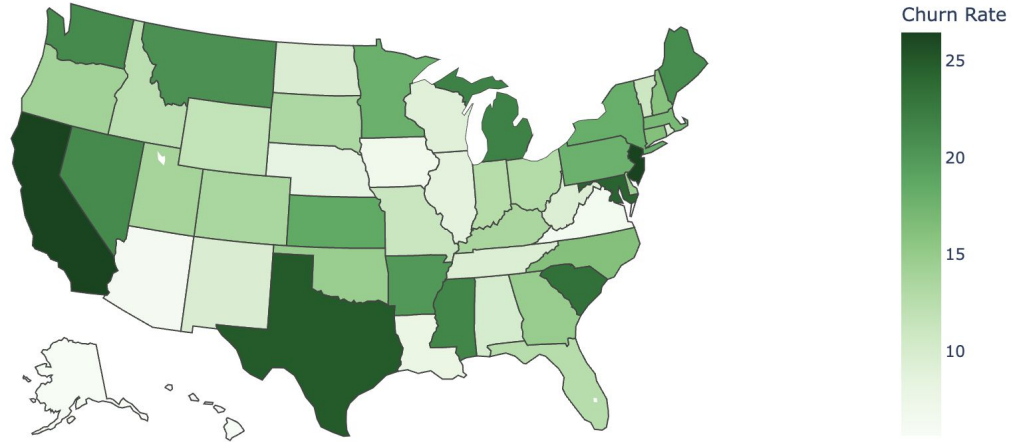
- Flag high-risk customers
- Offer special promotions to flagged accounts
- Consider changing day rates in high-churn states

Data Understanding

Telecoms Customer Information

Key Features:

- International plan
- Customer Service calls
- High day minutes



Methodology

- Classifier models
- Four iterations
- Fine-tuning

Final Model Key Trends



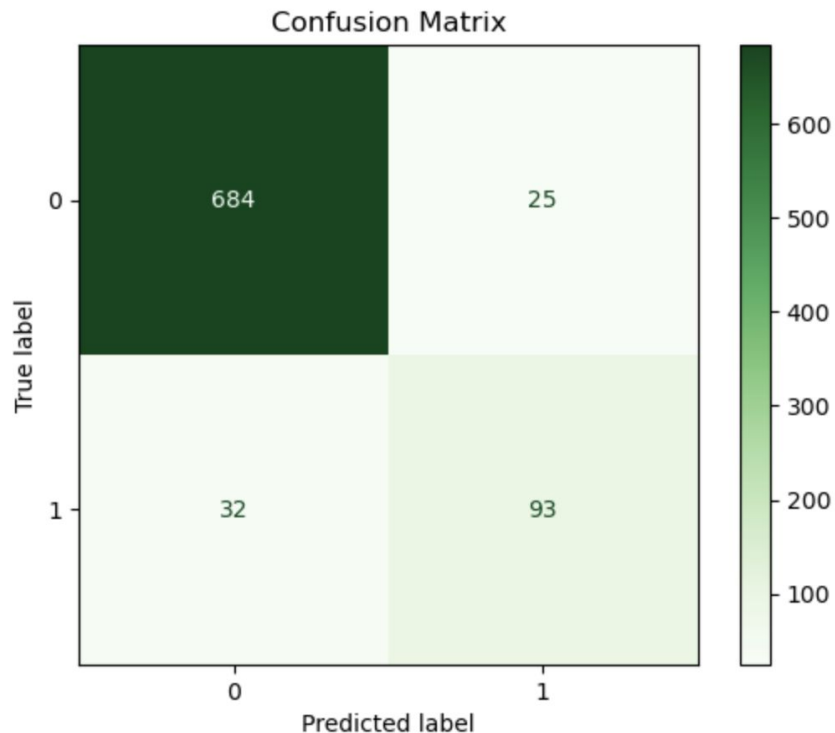
Optimized
Performance

Improved
Predictions

Key Feature
Reporting

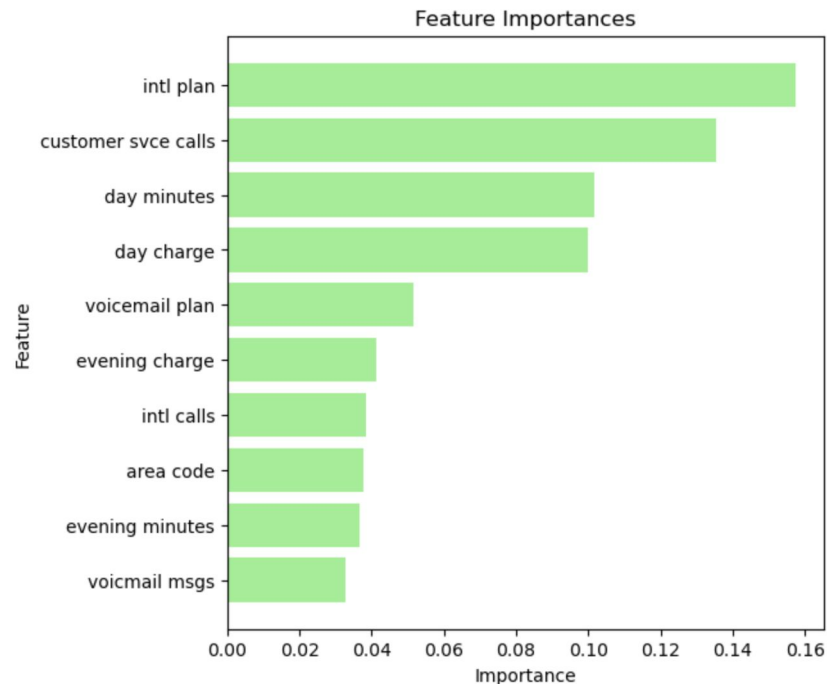
Final Model Results

- Negative Case (no churn)
 - 3.5% error
- Positive Case (churn)
 - 25% error



Final Model Results (cont'd)

- Key Features
 - International plan
 - Customer service calls
 - Day minutes/charges



Conclusions

Identification

Above-average service
calls

High int'l minutes

High day minutes

Promotions

Target high-risk
customers

Special rate packages

Upgrades

Repricing

Target higher-churn
states

Lower day rates

Lower int'l rates

Next Steps

- More data
- Geographical breakdowns
- Time-of-year analysis
- Content of customer service calls

Thank You!

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Sources:

- [Kaggle Telecoms Dataset](#)