

Telecom Customer Retention Project

Applying Data Science to identify customers on the verge of leaving Telecom

Summary

- Telecom
 - Provides phone service both national and International.
- FurPig Industries
 - Data Science firm of Greg Osborne, hired by Telecom.
- Business Problem
 - Reduce churn rate.
- To minimize churn rate:
 - **Utilize provided model**
 - **Target customers who call customer service**
 - **Reevaluate International Plan rates**
- More recommendations are possible.
- Thank you



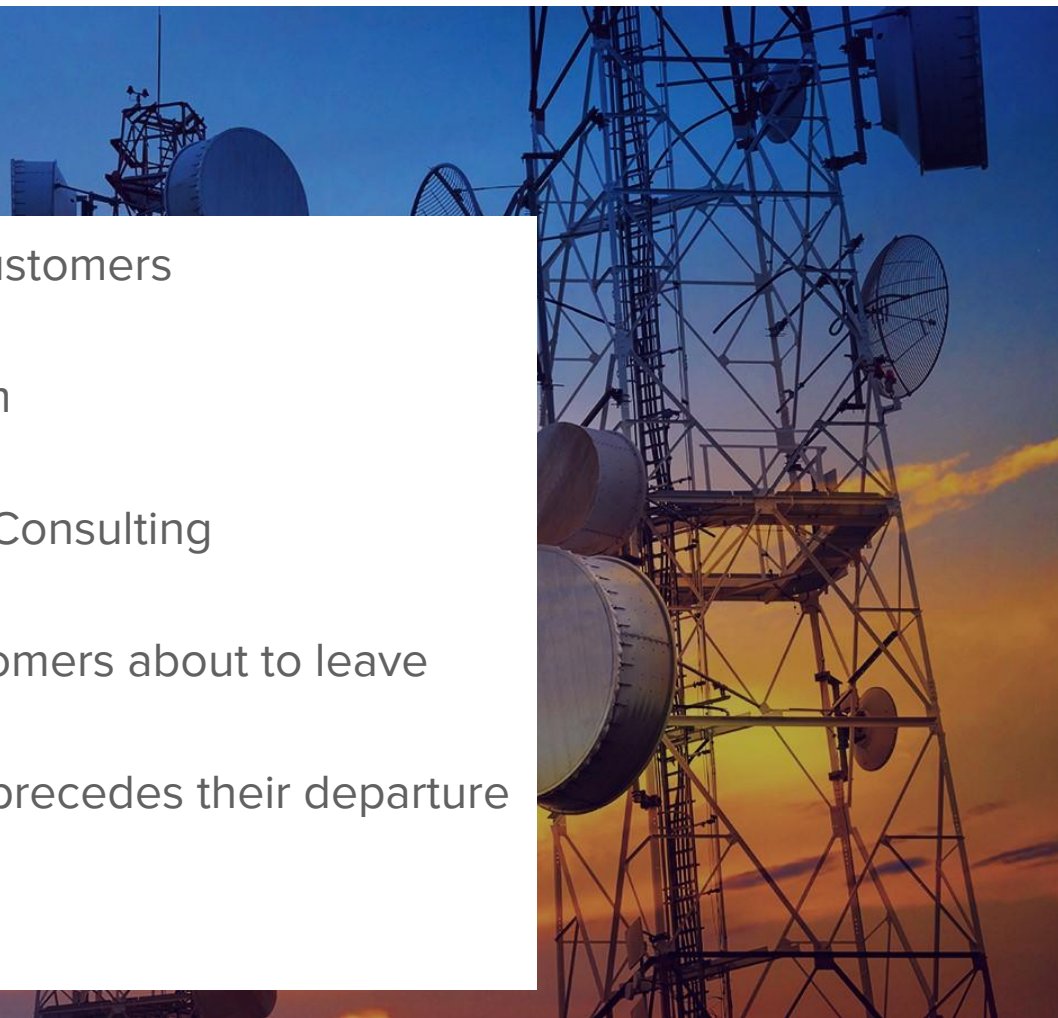
Outline

- Overview
- Business Problem
- Classification
Predictions
- Model Results
- Recommendations
- Next Steps
- Thank you



Overview

- Telecom wants to retain more customers
- They want to easily identify them
- FurPig Industries, Data Science Consulting
- Provide a model to identify customers about to leave
- Identify customer behavior that precedes their departure




Business Problem

- Customers leave Telecom for other carriers
- It's better for business to keep existing customers
- What indicates a customer is about to leave?

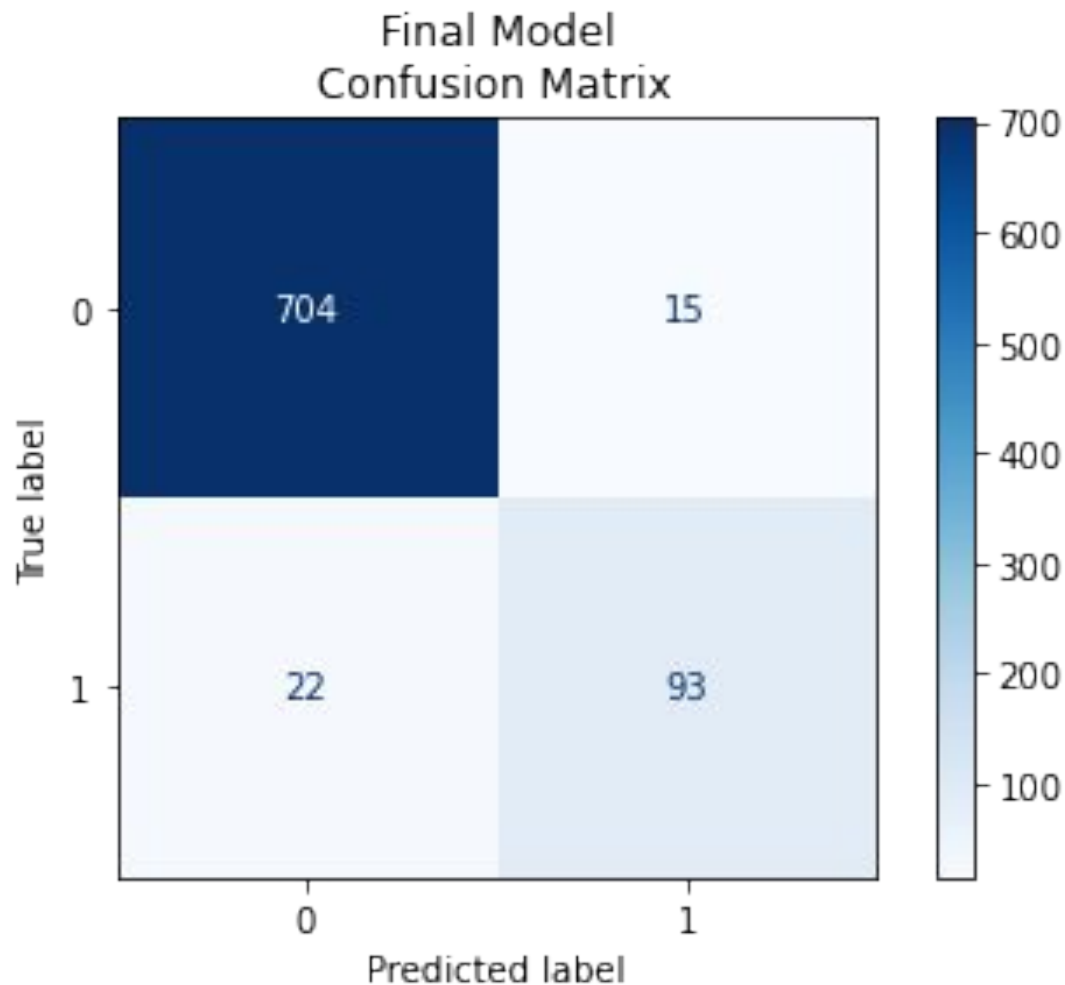


Classification Predictions

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- The Data Science method known as Classification can predict behavior.
 - We can give algorithms all data we have on customers who leave and stay.
 - The algorithms can identify patterns in a leaving customer's behavior.
 - The algorithms can predict which customers may be about to leave.

Model Results

- Created eleven models
- Prioritized Correctly Identifying True Positives
- Achieved over 80% Accuracy



Recommendation 1: Check High Churn Rate States

- New Jersey, California and Texas have a churn rate greater than 25%.
- Is there greater competition in these states?



Recommendation 2: Review Customer Service Calls

- The more often customers called customer service, the more likely they were to leave.
- What calls are departing customers making to customer service?
- How do departing customers rate customer service in the survey results?
- How does the wait time for customer service compare to other companies?
- What do people say about our customer service? What about online?





Recommendation 3: Review International Rates

- Departing customers were four times more likely to have an international rate plan.
- Every departing customer had made at least one international call.
- How does Telecom's international plan hold up against the competition?

Next Steps: More Research

- Customer Service topics?
- International rates?
- High Churn States?



Thank You!

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