

# 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.

# Outline

- Overview
- Business Problem
- Classification Predictions
- ModelResults
- 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

- 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 Oregon

- Oregon had the highest churn rate of all states.
- Is there greater competition in Oregon?



## 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?
- Oregon?



# Thank You!

**Email:** [gregory.r.osborne@gmail.com](mailto:gregory.r.osborne@gmail.com)

**GitHub:** @FunkyTable