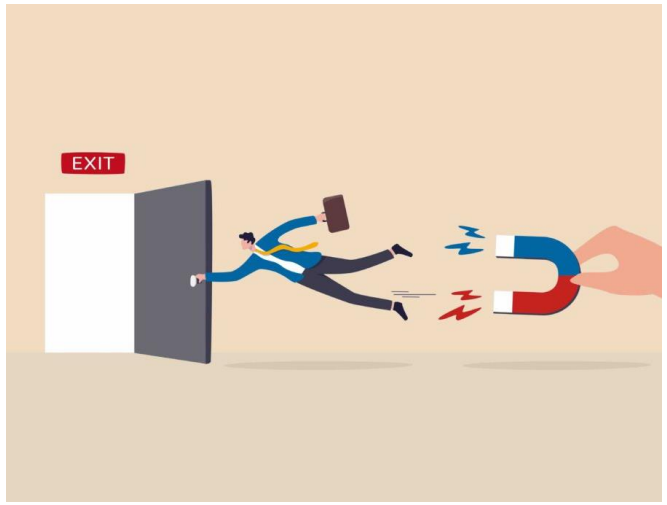


CAN WE MINIMIZE CUSTOMER CHURN BY TAKING A DATA BASED APPROACH?

JULIA MÜLLER

PRESENTED TO: SYRIATEL

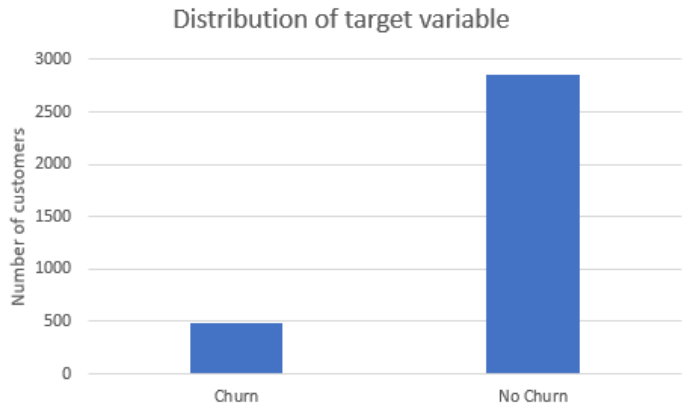
Agenda

- Business problem
- Insights
- Recommendation
- Limitations
- Questions & Answer

How we can help you prevent customers from leaving

- The situation:
  - **15% of your customers churn**
  - Can we identify patterns and predict when customers leave?
  - Who do you offer discounts and other packages?

- The answer:
  - Yes – **we identified patterns** from your customer data
  - You will be able to **predict who is likely to leave** and who is likely to stay
  - You will be able to do **targeted actions** while not overspending



Which data did we look at and how do we use it?

Data

More than 3300 customers with the following attributes:

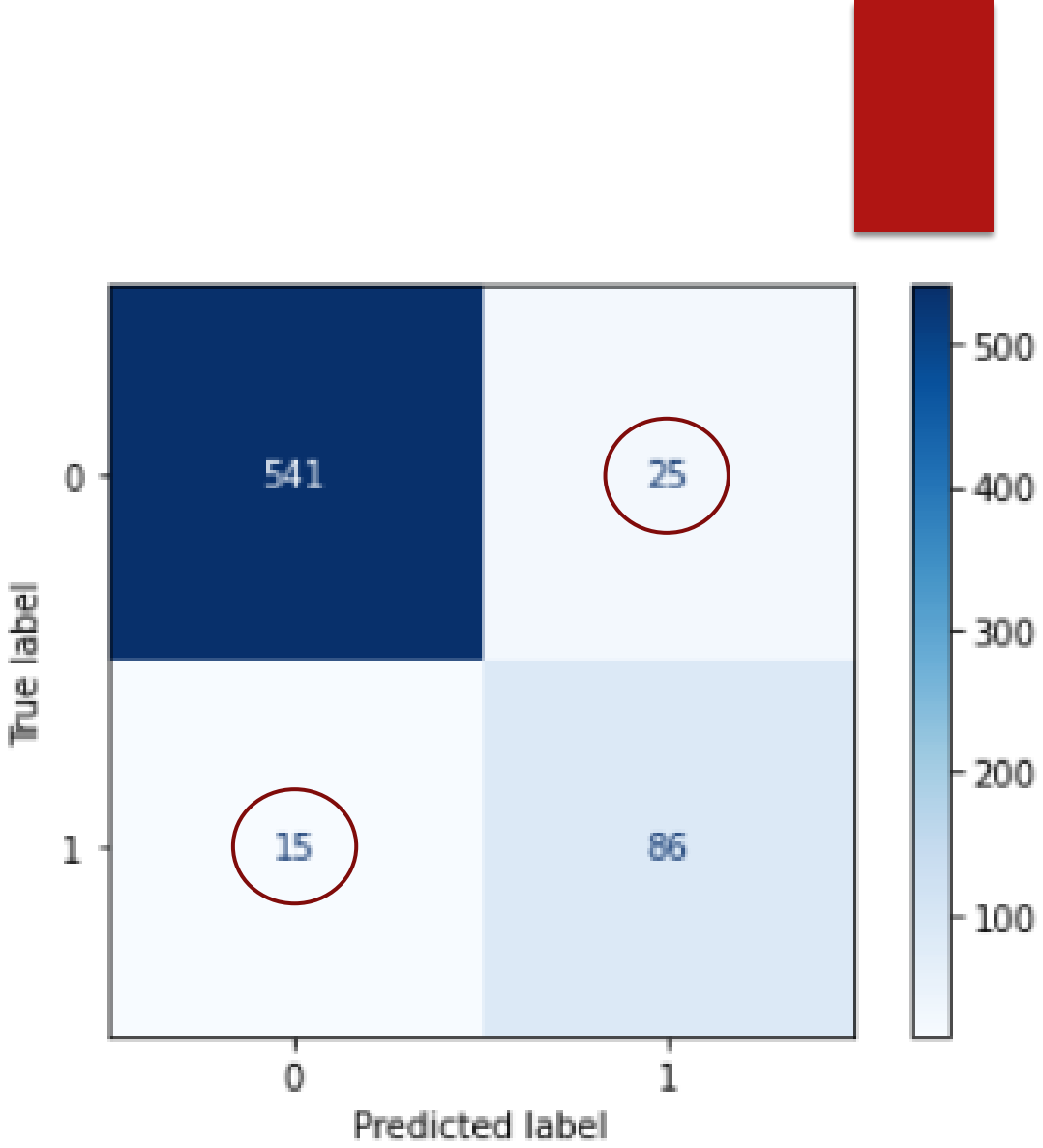
- **International Plan** (yes/no)
- **Voice Mail Plan** (yes/no)
- **Calls to Customer Service**
- **Total Minutes** (day, night, international)
- **Total Calls** (day, night, international)
- **Voice mail messages**

Method/approach

- Machine Learning models to correctly classify churning and not churning customers
- Iterative approach

The final model and its evaluation

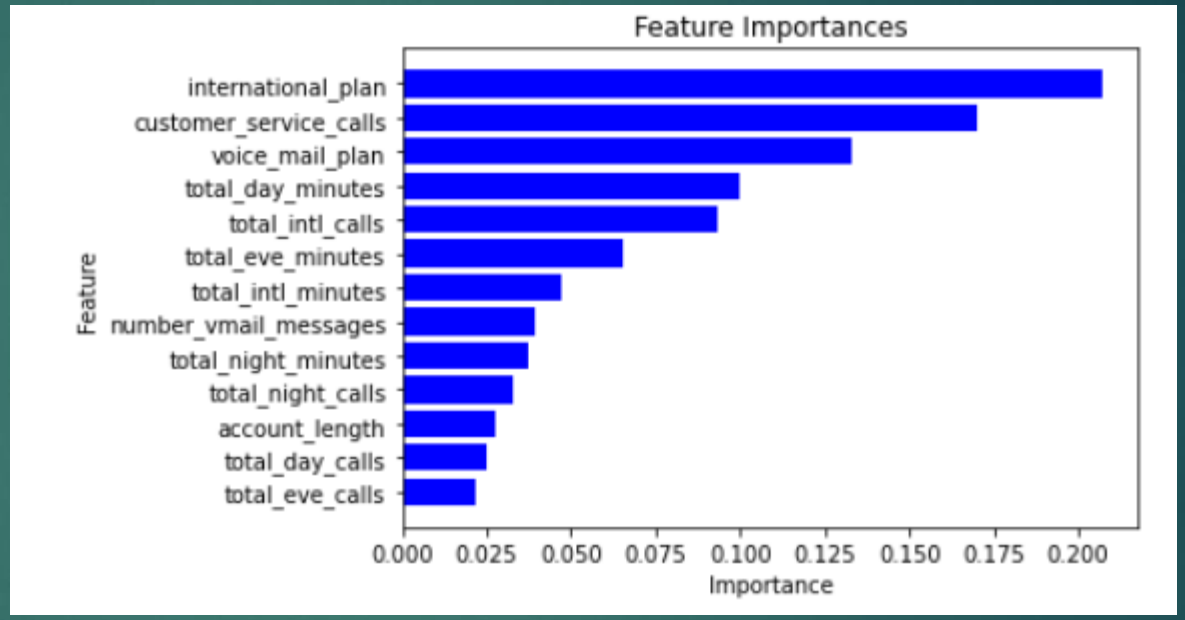
- Random Forest Classifier (Tuned Parameters)
- Highest weighted Recall Score (0.95)
- For the whole customer base, our model correctly identifies 95% of all cases of customers who churn and who don‘t



Interpretation

Top 3 most important features are:

1. **International Plan**
2. **Customer Service Calls**
3. **Voice Mail Plan**



Recommendation

01

Offer discounts to customers with a high amount of customer service calls

02

Improve your customer service quality

03

Offer an attractive international plan to your customers

Limitations & next steps

Limitations:

1. **Limited data set**
2. **Some churning customers will not be correctly identified**
3. **Some actually not churning customers will be offered discounts**

Next steps:

1. **Gather more data**
2. **Collect more information about your customers**
3. **Re-evaluate different models**

THANK YOU

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