

## yesimcebeci / Customer-Churn-Classification Public

### Customer Churn Prediction

☆ 0 stars ⚡ 0 forks

★ Star

👁️ Unwatch ▾

🔗 Code  ⓘ Issues ⚡ Pull requests ▶ Actions 📋 Projects 📖 Wiki ❗ Security 📈

⚡ main ▾

...



yesimcebeci Update README.md ...

18 minutes ago

🕒 6

[View code](#)

☰ README.md

✎

## Customer Churn Classification



# Table of Contents

---

- [Business Understanding](#)
- [Data Understanding](#)
- [Methods](#)
- [Best Performing Model](#)
- [Conclusion and recommendation](#)

## Business Understanding

---

Syriatel is telecommunications company that has concerns regarding churn rate. Using customer account data, we will analyze what features from the data are most important in predicting customer churn, or whether or not they will leave the company. In order to do this the notebook will provide classification models aimed at producing the highest possible recall metric. Predicting as many positives as possible out of actual positives from dataset is the goal here, thus recall has been chosen as one of the performance matrices along with an accuracy score and AUC score

## Data Understanding

---

The dataset contains relevant 3333 customer account data including:

state : The state the customer is from

account lenght : The account length of the customer

area code : the customer's area code

international plan : Whether or not the customer has an international plan

voice mail plan : Whether or not the customer has a voicemail plan

The total day, evening, night, and international minutes of the customer

The total day, evening, night, and international calls of the customer

The total day, evening, night, and international charge of the customer

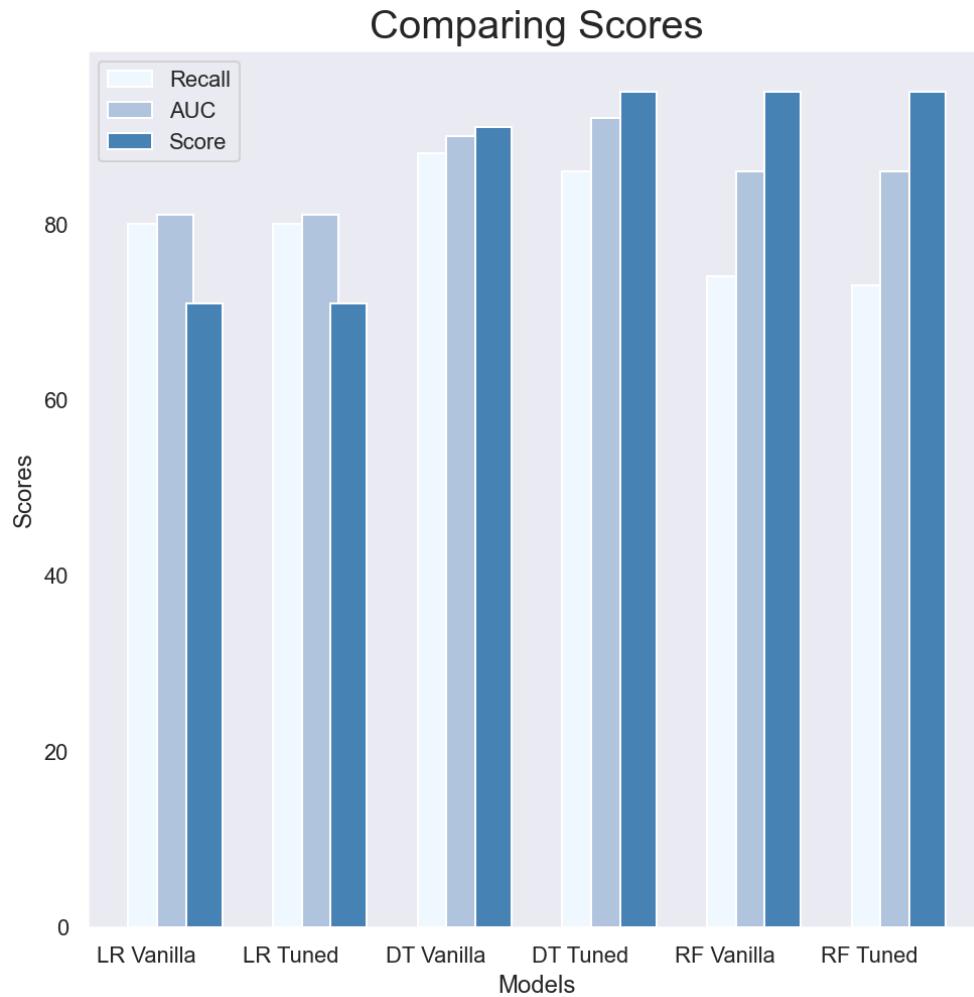
customer service call : The total customer service calls of the customer

churn : Whether or not the customer was 'true' or 'false' churn (true churn meaning that they have left the company, this will be the primary focus of the models)

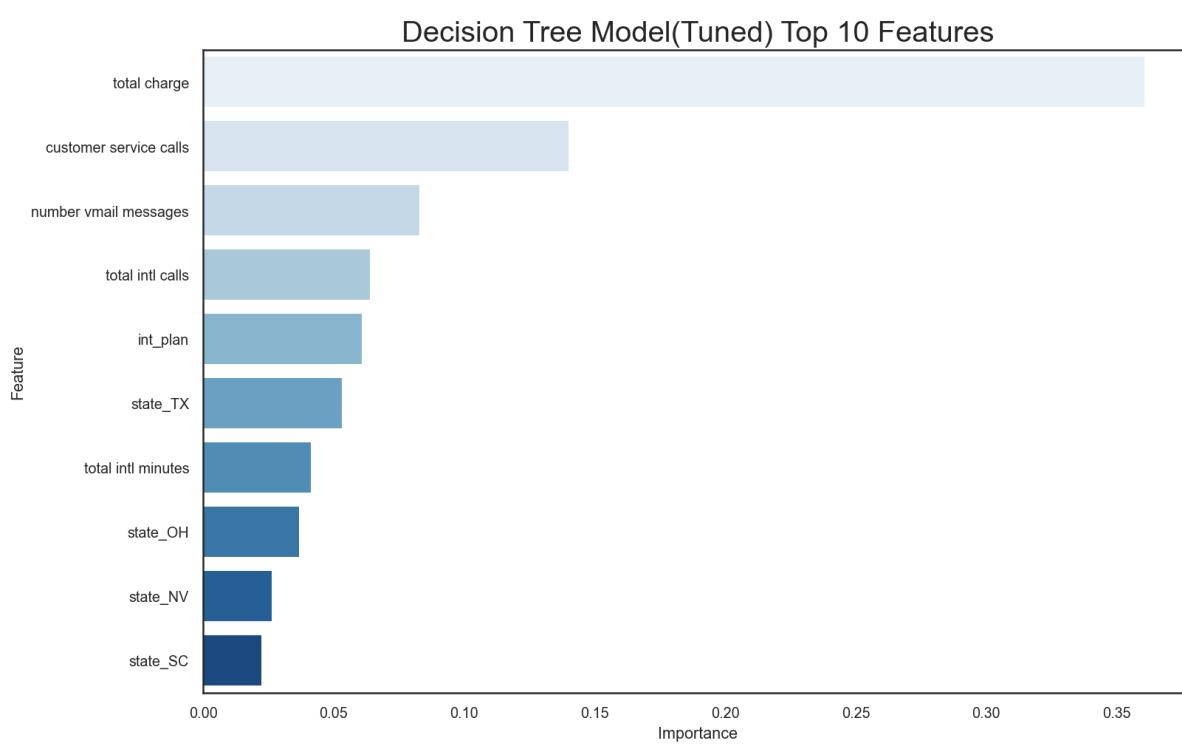
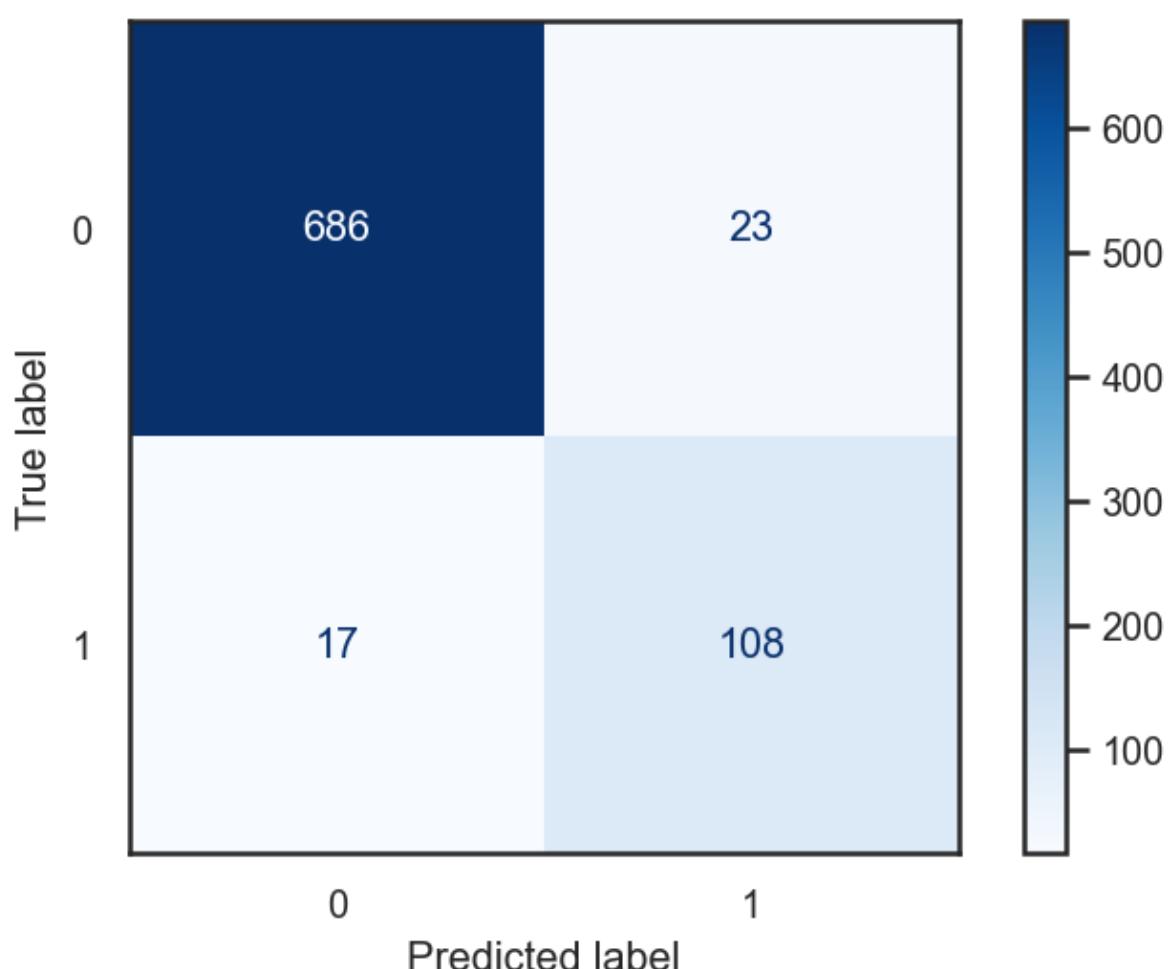
## Methods

- Using data to create classification models to predict customer churn
- Analyzing model according to recall metric
- Analyzing best performing model for top feature importance
- Conclusion and Business Recommendation

## Best Performing Model



Throughout the project, our goal was reducing False Negatives (Type II error). We got the best recall result with Decision Tree (Tuned Model). So we focused on what features on this model we should consider to prevent customer churn.



## Conclusion and recommendation

- Work on total charge and making promotions on this feature especially those who call customer service.
- Improving customer service. The more customer service calls, the more people leave the plan.
- Focus on international plan and prevent international customer from leaving

## Releases

No releases published

[Create a new release](#)

---

## Packages

No packages published

[Publish your first package](#)

---

## Languages

- **Jupyter Notebook** 100.0%