SYRIATEL CUSTOMER CHURN ANALYSIS

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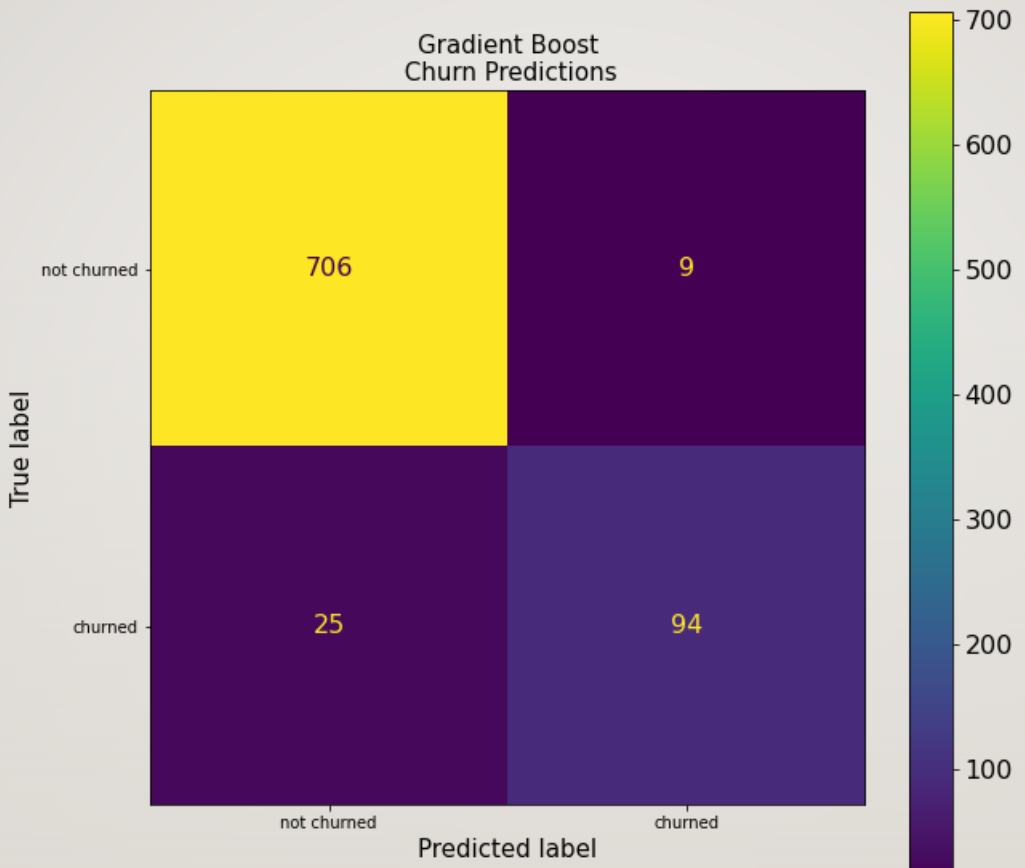
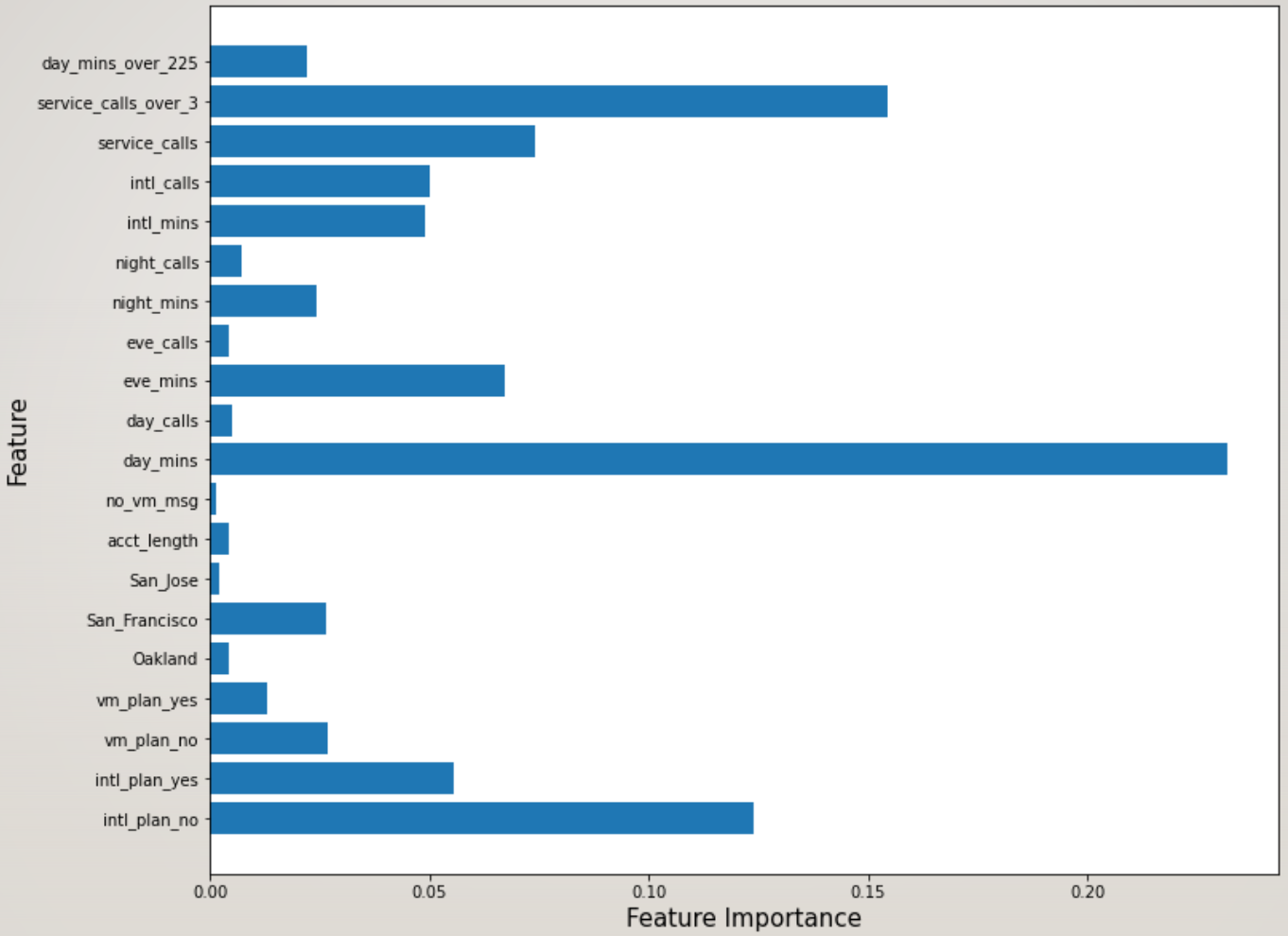
BUSINESS PROBLEM

- SyriaTel Is Losing Revenue Investing in Short-Term Customers
  - It would like a Classification Model to Accurately Identify Short-Term Customers
- Important to also Accurately Identify Long-Term Customers to Avoid Alienating Them by Treating Them like a Short-Term Customer
- Created a Model that Accurately Classifies both Short-Term and Long-Term Customers while Minimizing any Mischaracterizations



Model Classified Test Data
With 96% Accuracy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service_calls_over_3
service_calls
intl_calls
intl_mins
night_calls
night_mins
eve_calls
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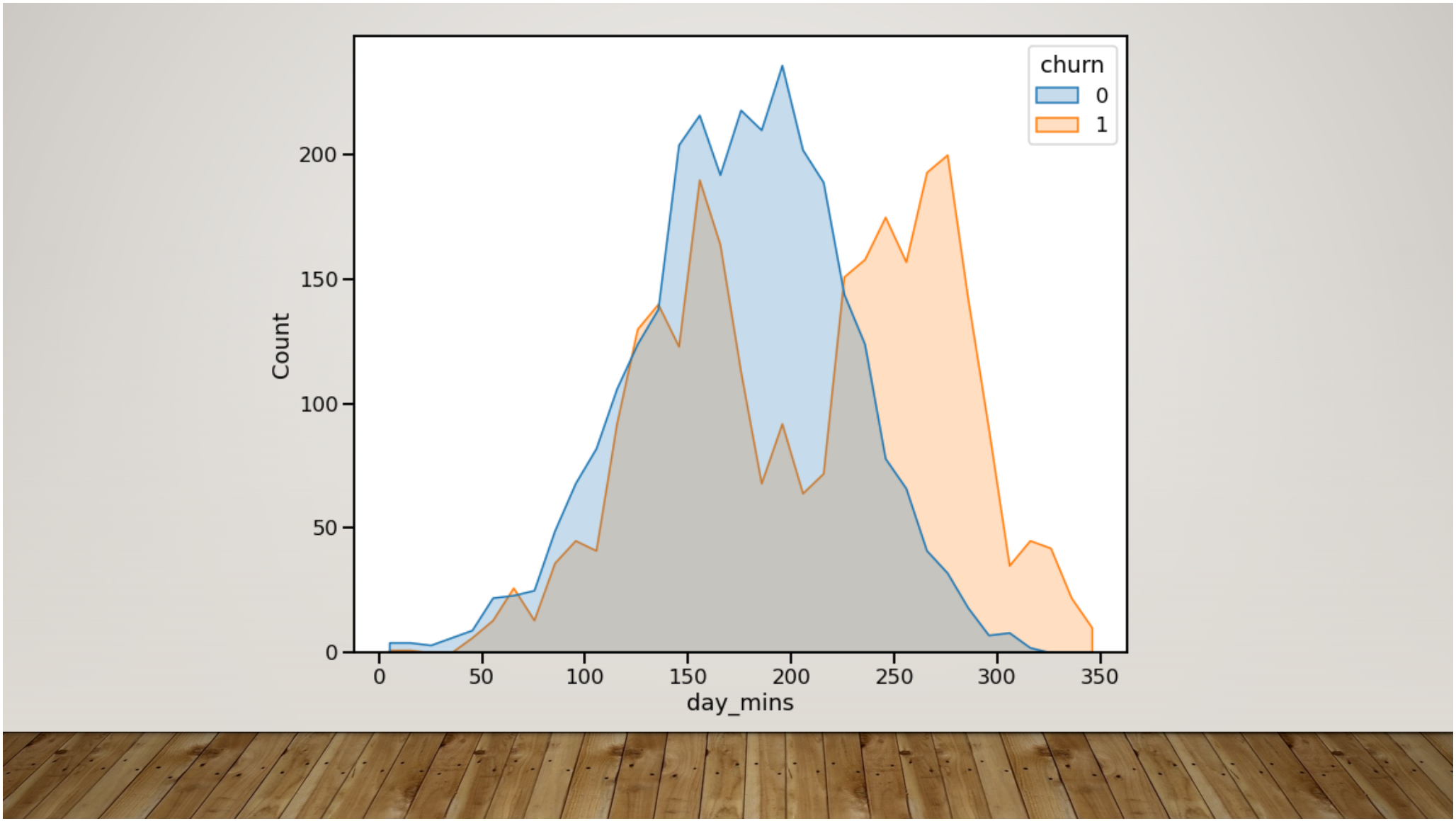
day_calls
day_mins
no_vm_msg
acct_length
San_Jose
San_Francisco
Oakland
vm_plan_yes
vm_plan_no
intl_plan_yes
intl_plan_no
Feature
0.00
0.05
0.10
0.15
0.20
Feature Importance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Count
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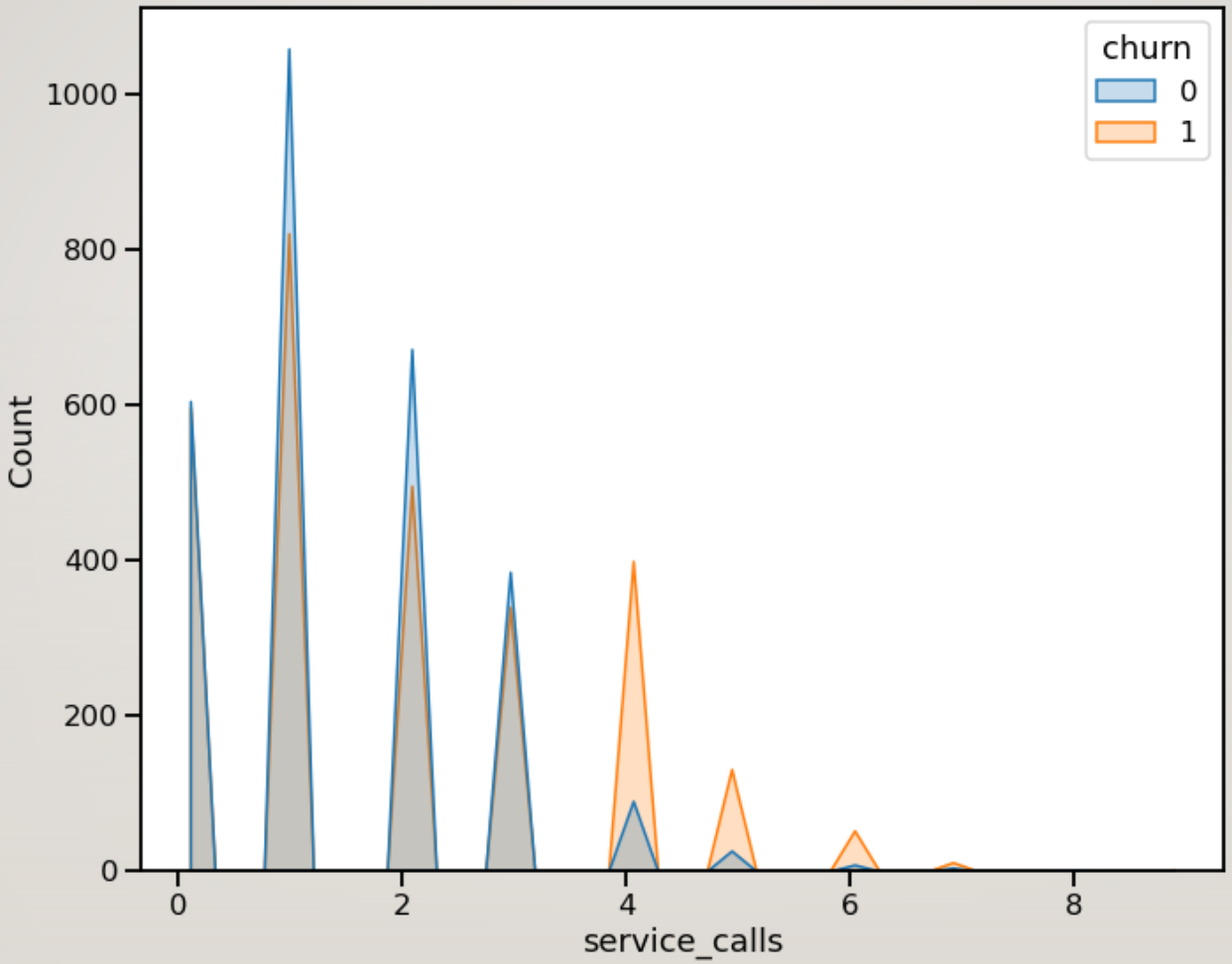
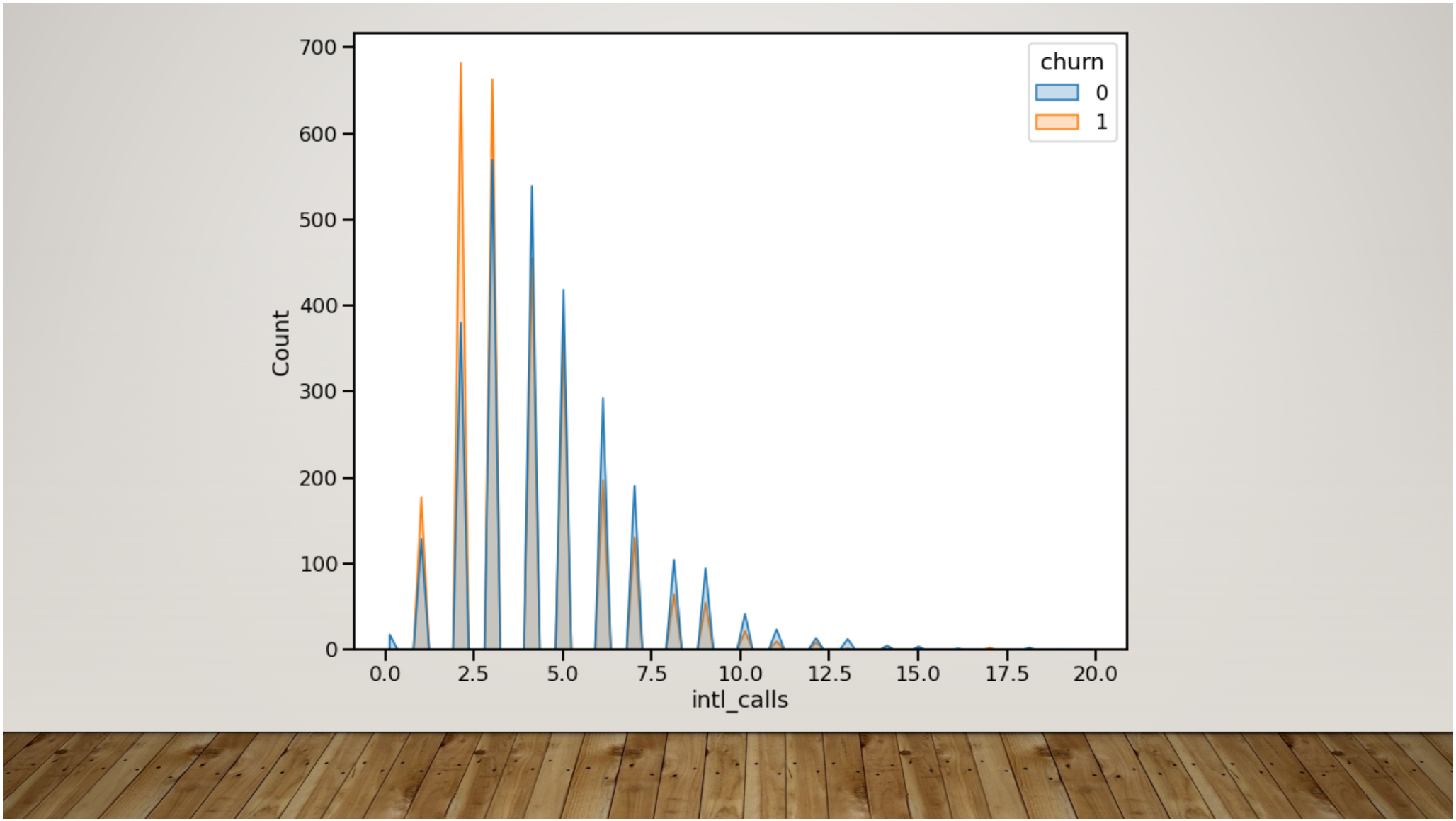
150
100
50
0
0
50
100
150
200
250
300
350
day_mins


churn
0
1
1000
800
600
400
200
0
Count
0
2
4
6
8
service_calls


churn
0
1
Count
700
600
500
400
300
200
100
0
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
intl_calls

CONCLUSIONS

- Created a model that classifies long-term customers and short-term customers with a 96% accuracy
- Model is better at classifying long-term customers rather than short-term customers

NEXT STEPS

- Can tweak the model to better classify short-term customers, but will likely result in decreasing the number of long-term customers that are classified correctly
- Investigate important features further
  - Determine impact of day minutes between long-term and short-term customers
  - Determine impact of the number of service calls made on long-term vs. short-term customers
  - Determine the impact of international services used by long-term vs. short-term customers

Thank You!

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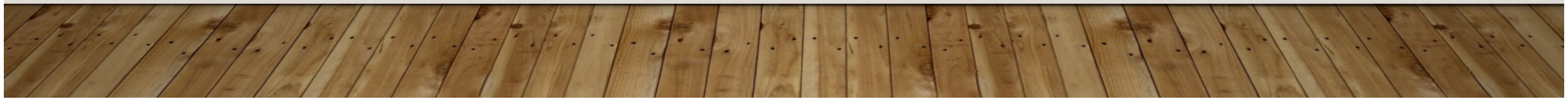
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