

Starbucks Capstone



Predict next purchase time



- One-offs or once in a while (tourists)
- 1-2 times a week (in the mood)
- Every day or two (regulars)



Classifying our customers

- Next purchase in 5 or more days
- Next purchase in 2-5 days
- Next purchase within 2 days

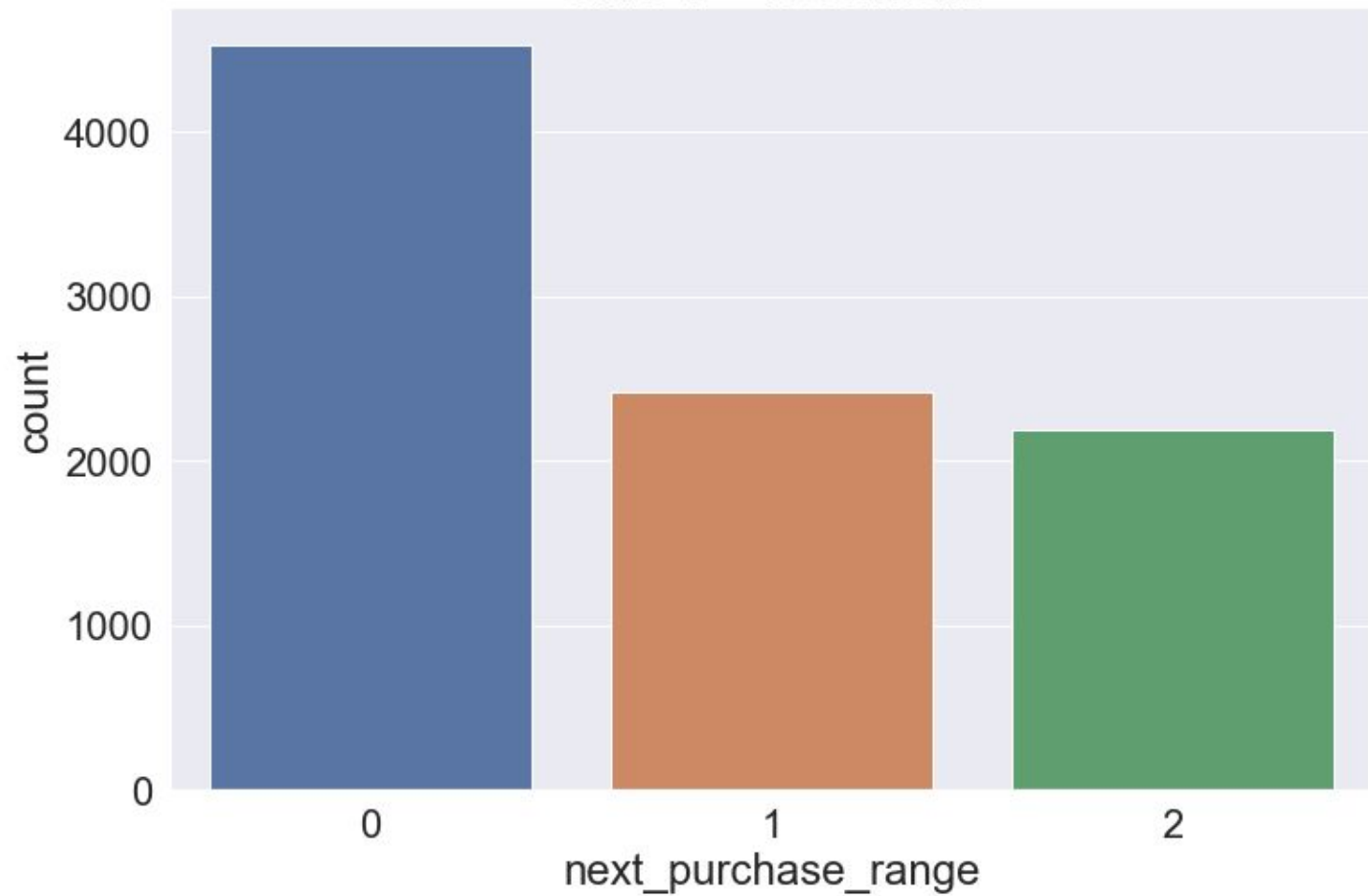


Our Data

- 9,130 customers
 - Demographics (gender, age, income)
- 30-day timeline
 - Hour of purchase (0-714)
 - Value of purchase
- Customer value
 - Recency
 - Frequency
 - Monetary
- Next purchase
 - First purchase in last 10 days - last purchase in first 20 days

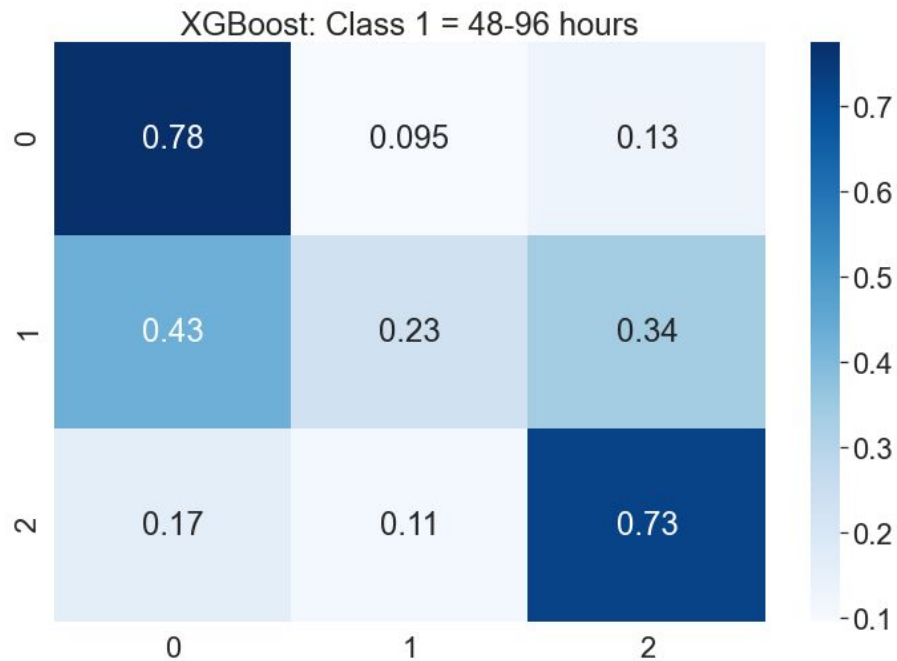


Class 1 = 48-96 hours

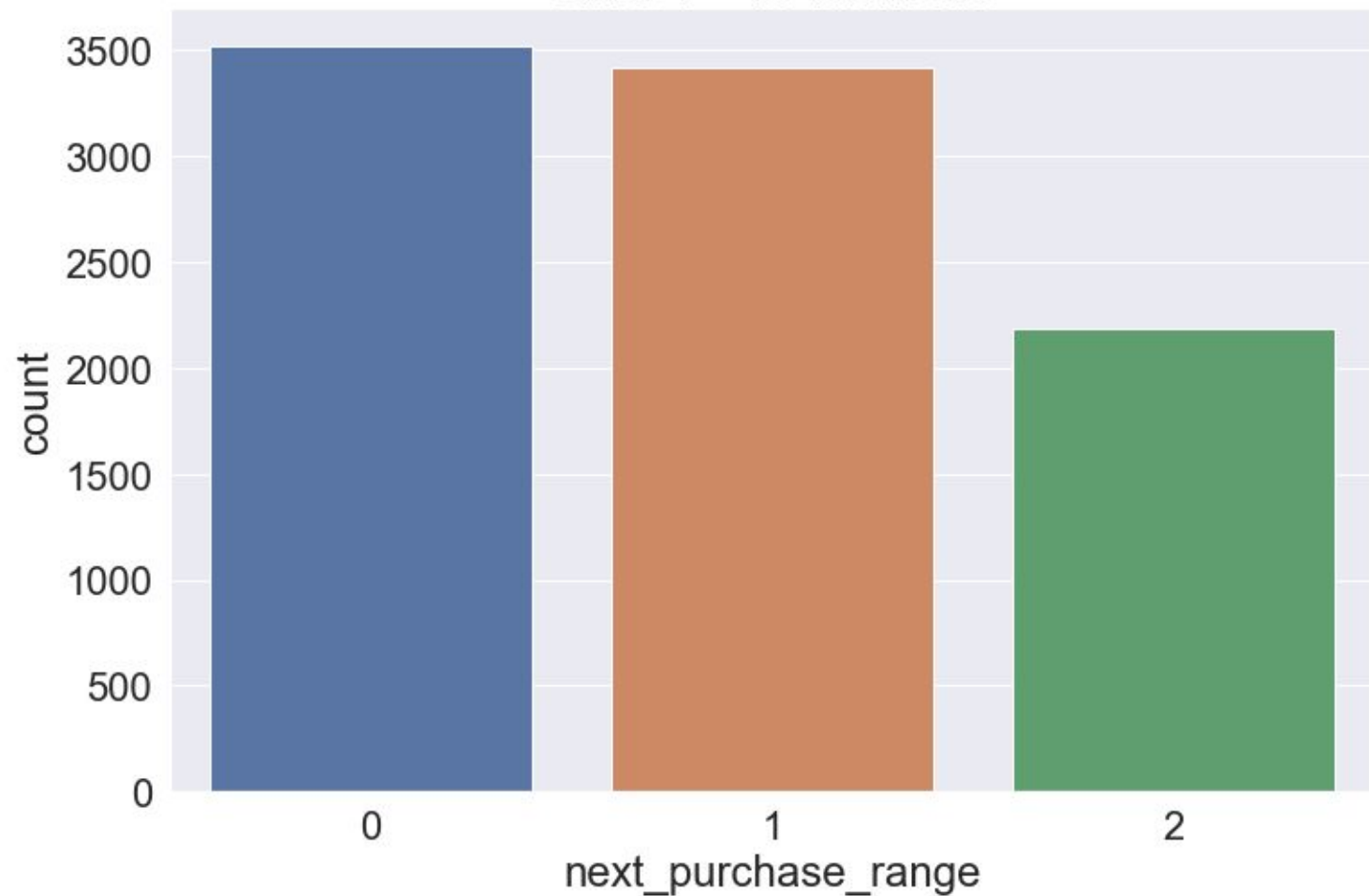


Errors we most want to avoid

1. Class 2 predicted as Class 0
2. Class 1 predicted as Class 0
3. Class 2 predicted as Class 1

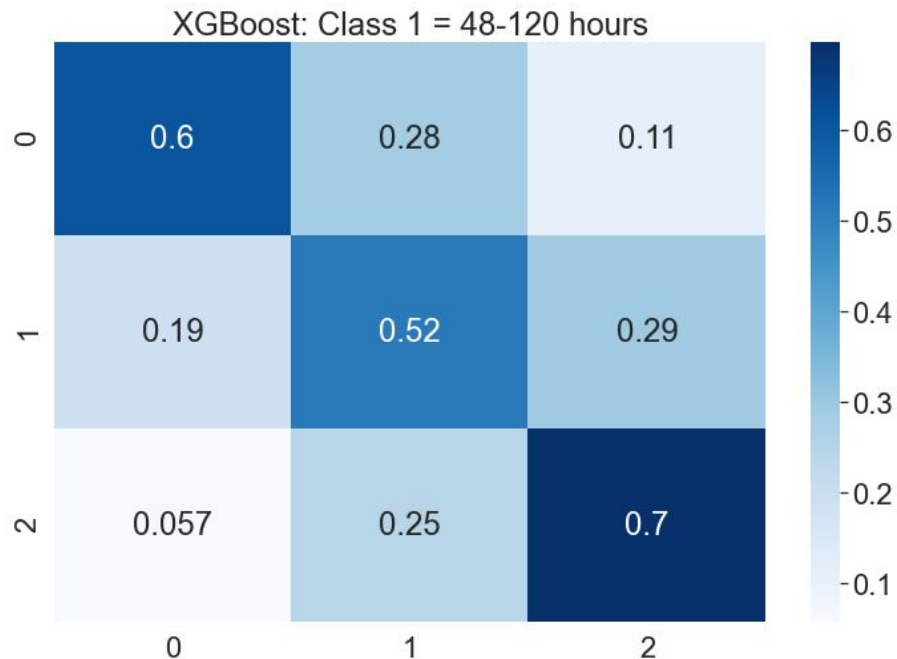


Class 1 = 48-120 hours



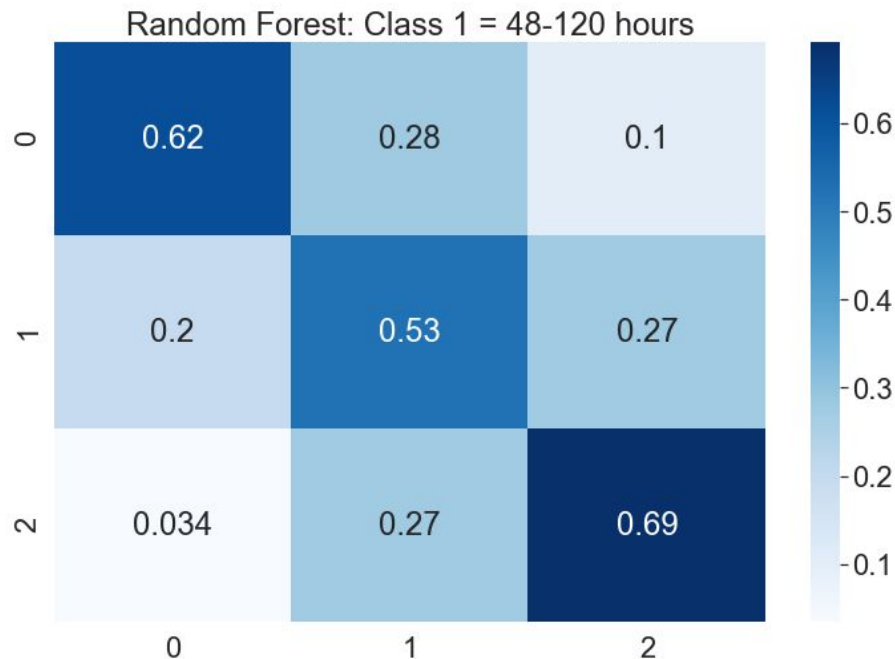
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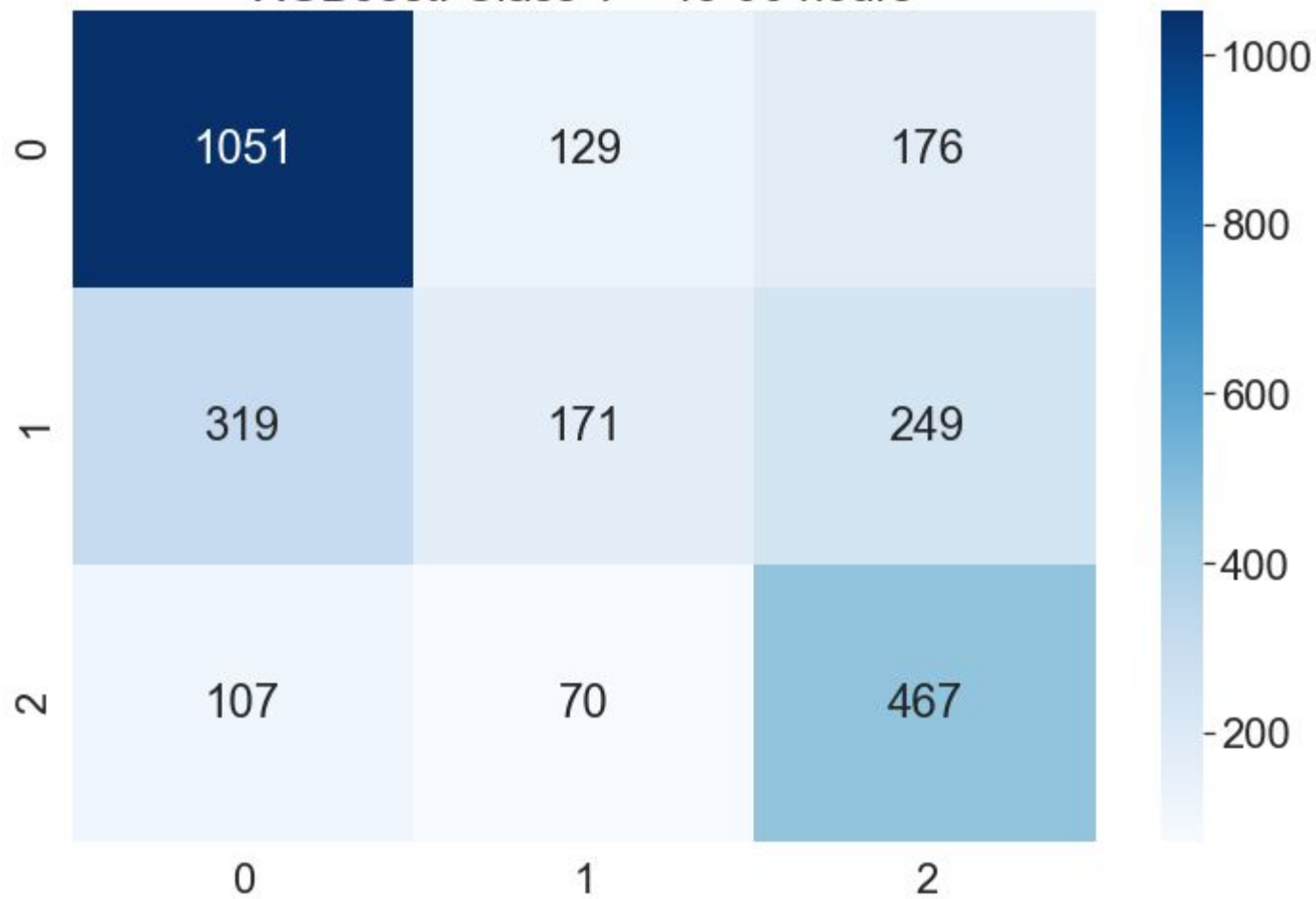


60%

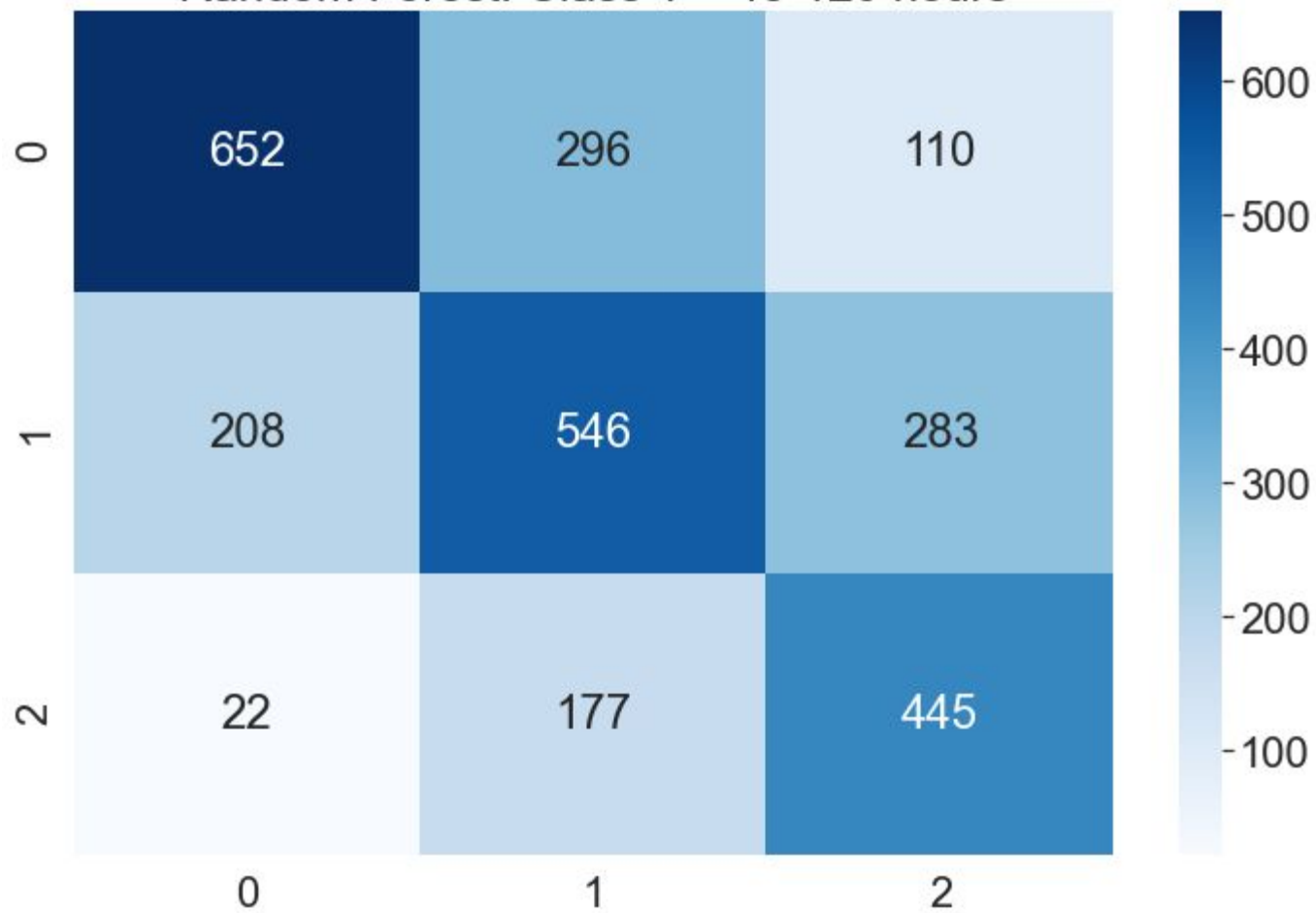
Is that accurate enough?

2,739 customers

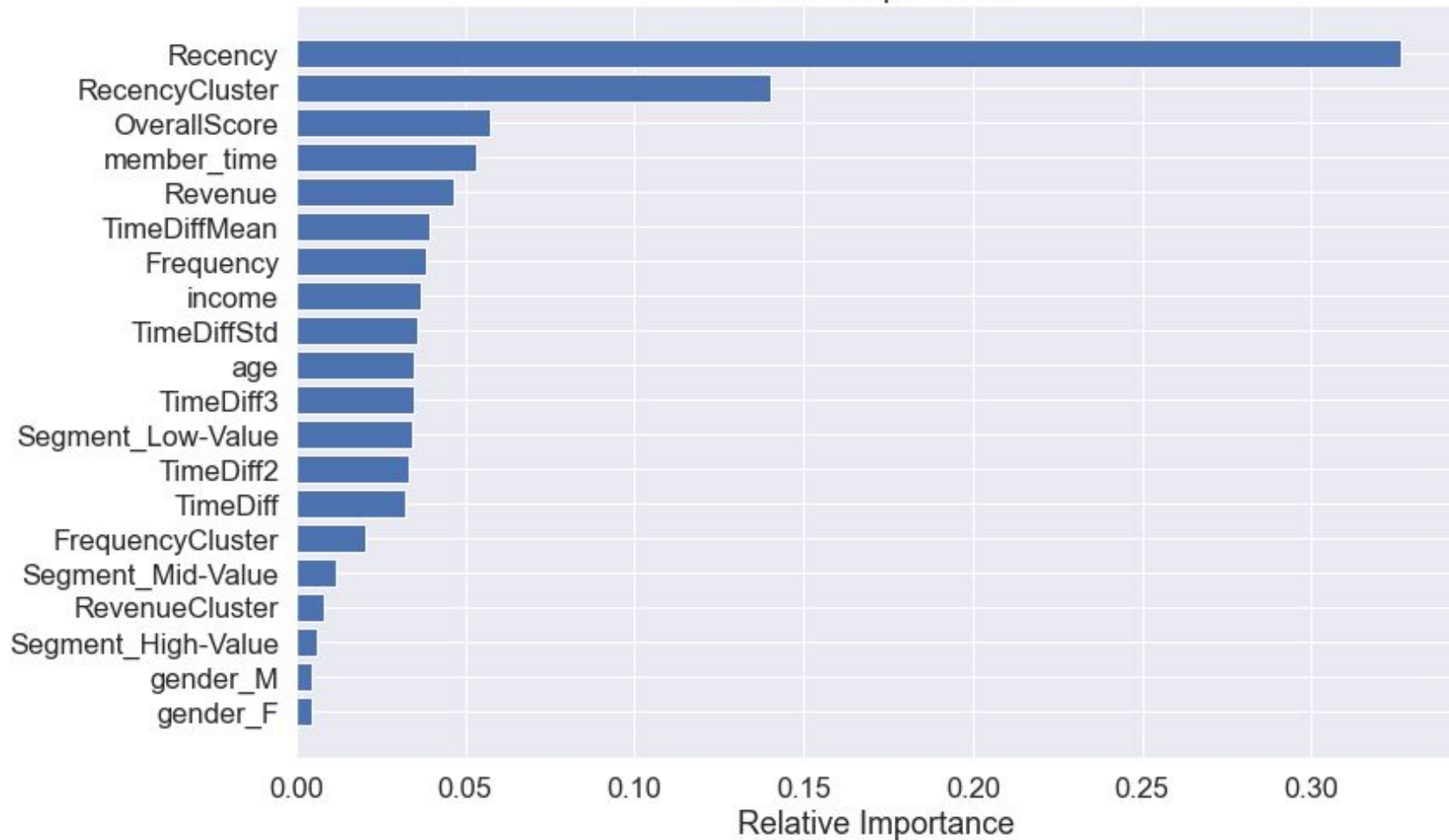
XGBoost: Class 1 = 48-96 hours



Random Forest: Class 1 = 48-120 hours



Feature Importances



Next steps

- More Recency categories?
- Keep customers coming every day, or every week.
- Make the best use of our offers.

**Starbucks
Springboard
Capstone**

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