

S-mobile

Group 14 - Aditya Kumawat

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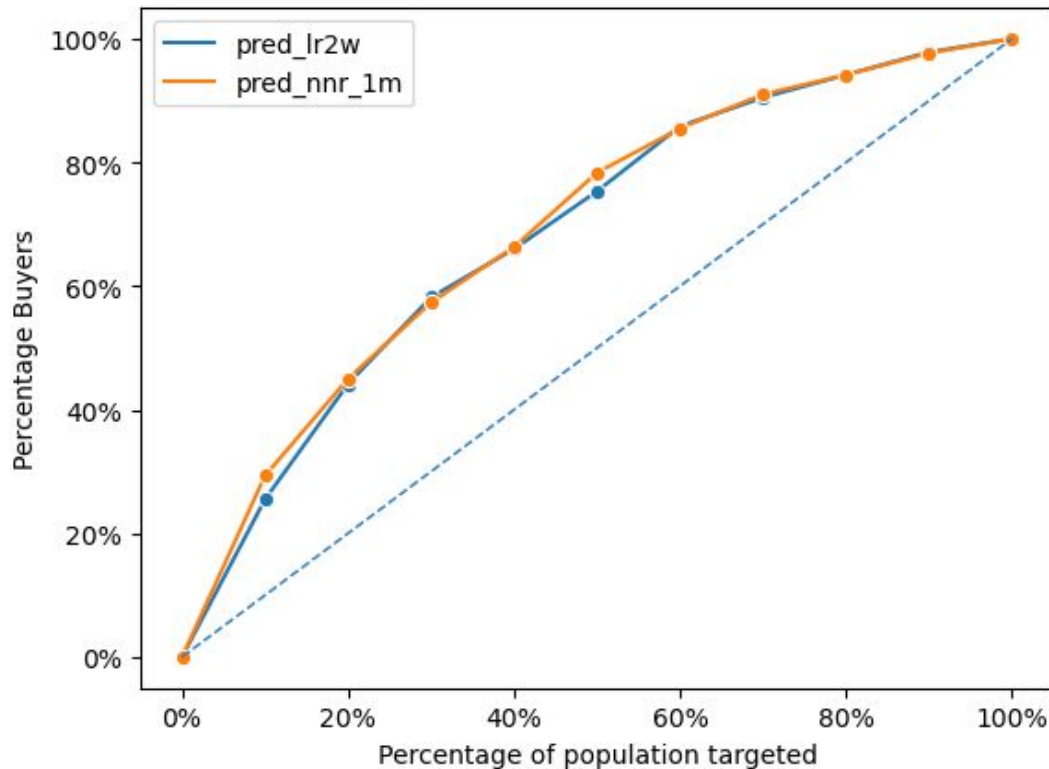
Introduction to the Problem

- Background: Shu Ying Seng, an experienced employee at S-Mobile and a recent graduate of the Master's in Business Analytics program at NUS, returned to manage a team tasked with reducing customer churn through predictive analytics. Previously involved in reactive churn management at S-Mobile's retention desk, Shu Ying sought a more proactive approach to identify and address customer churn risks before dissatisfaction occurs.
- Customer Churn: Customer churn refers to the phenomenon where customers stop using a company's services or products, which is a critical metric affecting revenue and growth in the telecommunications industry.
- Goal of the Case: The case aims to develop a predictive model to identify customers at risk of churning by analyzing historical data on customer behavior and characteristics. The ultimate goal is to implement targeted marketing actions and offers to reduce churn rates, transitioning from reactive to proactive churn management strategies to enhance customer satisfaction and retention.

Model Comparison

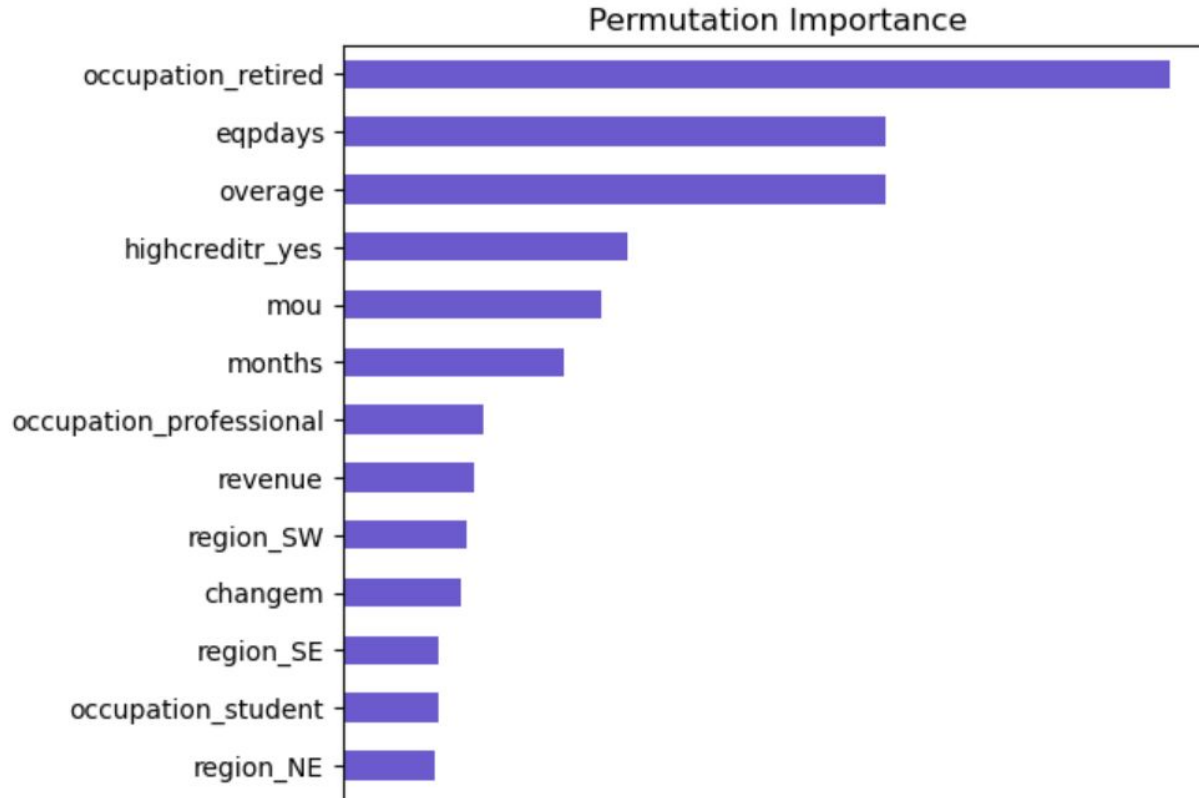
lr2_w model	Neural network model (nnr_1M)
<p>We used class weights method to train the model.</p> <p>AUC for this model is 0.694</p> <p>Average Predicted probability of Churn on representative set 0.198</p>	<p>We used S-Mobile 1 million data set to train this model</p> <p>AUC for this is 0.71</p> <p>Average Predicted probability of Churn on representative set 0.02</p>

Comparing Gains



From the above gains chart we can see that Neural Networks is better fit in terms of gains on the representative data set. And We have decided to Neural Network as our final Model

Importance of Variables



Among all the independent variables: Occupation, eqpdays, overage were in the top 3

Overage and eqpdays affected the churn positively. Whereas student occupation had the highest predicted churn.

Top 3 Action/Offer/Incentive

Action/Offer/Incentive	Impact on probability of Churn	Target Audience for the offer
Counter Overage by Accumulation Method	Actual Churn: 0.0243 Predicted Churn: 0.0136	We will target all the users whose average overage minutes is greater than 0
Providing new handset to users whose handset is older than 1.5 years	Actual Churn: 0.0239 Predicted Churn: 0.0084	To make is business optimal, we will extend this offer to only those customers who are loyal customers
Incentive to provide credits to students time spent using the service	Actual Churn: 0.0423 Predicted Churn: 0.0313	We will only target students who mou is less average mou of the students. Since we don't want to target students who already performing better terms of mou

Fonts

Google Slides vs PowerPoint vs Keynote

Simple Agenda Title

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Conclusion

- CLV Improvement from Incentive to Counter overage: 299.1.
- CLV Improvement from Incentive to provide new Handset to old phone users: 310.0.
- CLV Improvement from Incentive to provide credits to students time spent using the service: 102.7.
- all the strategies lead to a sizable improvement in the customer lifetime value.

Thank you!