

1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?

Top variable are as follows:

- Lead Source_reference
- What is your current occupation_working professional
- Lead Source_welingak website

2. What are the top 3 categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion?

Top variable are as follows:

- Lead Source_reference
- What is your current occupation_working professional
- Lead Source_welingak website

3. X Education has a period of 2 months every year during which they hire some interns. The sales team, in particular, has around 10 interns allotted to them. So during this phase, they wish to make the lead conversion more aggressive. So they want almost all of the potential leads (i.e. the customers who have been predicted as 1 by the model) to be converted and hence, want to make phone calls to as much of such people as possible. Suggest a good strategy they should employ at this stage.

One strategy that the sales team at X Education could employ during their intern hiring phase to make the lead conversion more aggressive would be to focus on precision.

Precision is a measure of a model's ability to correctly identify positive instances (i.e. correctly identifying a potential customer as a lead). By increasing precision, the sales team can ensure that they are making phone calls to as many of the truly potential leads as possible, rather than wasting time on customers who are unlikely to convert.

One way to increase precision would be to adjust the threshold of the model used to predict potential leads. A threshold of 0.5 is commonly used, but adjusting this threshold to a higher or lower value can change the number of positive instances that are predicted by the model. By adjusting the threshold to a higher value, the model will be less likely to predict a customer as a potential lead, thus increasing precision but reducing recall.

As we can see that more and more leads are coming through references so they can launch a good referral program to attract leads.

Finally, the sales team could consider using ensemble methods such as Random Forest or XGBoost, which are known for their high precision and good performance in dealing with imbalanced datasets.

Another way to increase precision would be to retrain the model using more data or using different feature selection techniques, this would improve the accuracy of the model and increase precision.

- 4. Similarly, at times, the company reaches its target for a quarter before the deadline. During this time, the company wants the sales team to focus on some new work as well. So during this time, the company's aim is to not make phone calls unless it's extremely necessary, i.e. they want to minimize the rate of useless phone calls. Suggest a strategy they should employ at this stage.**

One strategy the company could employ at this stage is to set clear guidelines and expectations for when and why phone calls should be made. For example, they could establish a policy that phone calls should only be made for specific, high-priority reasons such as closing a large deal or addressing a critical customer concern. Additionally, the company could provide training and resources to the sales team on alternative communication methods such as email, text, or social media to help them effectively communicate with clients and prospects without relying on phone calls. Another strategy could be using data and analytics to identify the most promising leads and focusing the sales team's efforts on those leads. This could help to ensure that phone calls are being made to the most valuable potential customers, rather than wasting time on less promising leads.