

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

**Answer:**

**Tags\_Lost EINS, Tags\_Closed by Horizzon, Tags\_Will revert after reading the email**

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?

**Answer:** The top three categorical/dummy variables in the final model are '**Tags\_Lost to EINS**', '**Tags\_Closed by Horizzon**', '**Lead Quality\_Worst**' with respect to the absolute value of their coefficient factors.

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.

**Answer:**

**Model Analysis at cutoff 0.1:**

Accuracy : 0.7954461990451708

Sensitivity : 0.9555106167846309

Specificity : 0.7041522491349481

Precision : 0.6481481481481481

The model has Sensitivity of 0.95, this means the model is able to predict 95% customers out of all the converted customers, (Positive conversion) correctly.

The model has Precision of 0.64, this means 64% of predicted hot leads are True Hot Leads.

Ensure that the leads predicted as '1' are contacted promptly. Implement a rapid follow-up process where interns reach out to these leads as soon as possible after they show interest or engage with X Education's offerings.

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.

**Answer:**

**Set Cutoff to 0.9**

**Accuracy: 0.8617079889807162 Sensitivity: 0.639344262295082 Specificity: 0.9921328671328671 Precision: 0.9794520547945206**

The model has Sensitivity of 0.63, this means the model is able to predict 63% customers out of all the converted customers, (Positive conversion) correctly. &, correct predictions for 99 % who are not converted

The model has Precision of 0.97, this means 97% of predicted hot leads are True Hot Leads.

**Raise the Cutoff Threshold: Increase the cutoff threshold for lead classification. This means that leads must have a higher predicted probability of conversion to be classified as '1' (Hot Lead). By raising the threshold, you are making the classification criteria more stringent.**