UpGrad & IIITB-DS-C61 | Case Study – Lead Scoring
Submitted By – Prathamesh Kulkarni

Questions and Answers

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

Answer: - Considering the values of coefficients of variables in the final model, following are the top three variables contributing most towards the probability of a lead getting converted:
i. Tags_Closed by Horizzon (coeff. = 8.2874)
ii. Tags_Lost to EINS (coeff. = 8.2726)
iii. Tags_Will revert after reading the email (coeff. = 7.0349)

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: - Again, considering the values of coefficients of variables in the final model, following are the three categorical variables, which need to be focused most on to increase the probability of lead conversion:
i. Tags (coeff. is positive)
ii. Lead Quality (coeff. is positive)
iii. Lead Source_Welingak Website (coeff. is positive)

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: - After building the logistic regression model, we build a cutoff matrix for all levels of probability, which helps in determining the optimal cutoff to strike a good balance between sensitivity and specificity. In this particular case, we found that the optimal cutoff probability is 0.33 (We can also consider the Lead Score = Conversion Probability x 100 = 0.33 x 100 = 33), beyond which, any lead can very well be converted. However, when the company hires interns and wants to convert all the potential leads by making as many phone calls as possible, a good strategy would be to bring this cutoff down. In other words, company must focus more on sensitivity of the model, than the specificity. If we bring the cutoff down from 0.33 to, let's say, 0.2 (Lead Score = 20), interns will make phone calls to more potential leads and more leads will probably be converted.

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 minimise the rate of useless phone calls. Suggest a strategy they should employ at this stage.

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Answer: - As opposed to the strategy employed during the months when interns are available to make as many phone calls as possible, to reduce the number of phone calls, company must increase the cutoff for the Lead Score. In other words, instead of calling all leads above the Lead Score of 33, company can decide to call only the leads above Lead Score of 60. This way, the company will focus more on specificity by reducing False Positives in the lead conversion attempt.