

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

Considering the coefficient values from below screen shot the top three variables in your model which contribute most towards the probability of a lead getting converted are:

- 1) Total Time Spent on Website
- 2) Lead Origin\_Lead Add Form
- 3) LastActivity\_Had a phone conversation

	coef
const	-0.8646
Do Not Email	-1.6052
Total Time Spent on Website	3.4451
Lead Origin_Lead Add Form	3.2505
Lead Source_Direct Traffic	-1.4442
Lead Source_Google	-1.0696
Lead Source_Organic Search	-1.2678
Lead Source_Referral Sites	-1.3593
Last Activity_Had a Phone Conversation	2.8026
Last Activity_Olark Chat Conversation	-1.0364
Last Activity_SMS Sent	1.2770
Last Activity_Unsubscribed	1.3369
Last Notable Activity_Modified	-0.9020
Last Notable Activity_Unreachable	1.6532

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?

Based on the coefficient values from the screen shot in the question above, the following are the top three categorical/dummy variables that should be focused the most in order to increase the probability of lead conversion :

- 1) Lead Origin\_Lead Add Form
- 2) LastActivity\_Had a phone conversation
- 3) Last Activity\_ Unsubscribed

- 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.

In the final prediction the optimal cut off is 0.37. In order to make the sales aggressive, the company should try contacting all the leads which have a conversion probability (value = 1) under a cut off 0.3

	Converted	Converted_probability	Prospect ID	predicted	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	Last_predicted	Lead_Score
0	0	0.193037	3009	0	1	1	0	0	0	0	0	0	0	0	0	19
1	0	0.029495	1012	0	1	0	0	0	0	0	0	0	0	0	0	3
2	0	0.379980	9226	0	1	1	1	1	0	0	0	0	0	0	1	38
3	1	0.883056	4750	1	1	1	1	1	1	1	1	1	1	0	1	88
4	1	0.819253	7987	1	1	1	1	1	1	1	1	1	1	0	1	82
5	1	0.820548	1281	1	1	1	1	1	1	1	1	1	1	0	1	82
6	0	0.127262	2880	0	1	1	0	0	0	0	0	0	0	0	0	13
7	1	0.937642	4971	1	1	1	1	1	1	1	1	1	1	1	1	94
8	1	0.757002	7536	1	1	1	1	1	1	1	1	1	0	0	1	76
9	0	0.798756	1248	1	1	1	1	1	1	1	1	1	0	0	1	80
10	0	0.714163	1429	1	1	1	1	1	1	1	1	1	0	0	1	71
11	0	0.151119	2178	0	1	1	0	0	0	0	0	0	0	0	0	15
12	0	0.052209	8554	0	1	0	0	0	0	0	0	0	0	0	0	5
13	1	0.601664	5044	1	1	1	1	1	1	1	1	0	0	0	1	60
14	1	0.497020	3475	0	1	1	1	1	1	0	0	0	0	0	1	50

- 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 not to 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.  
To minimize the rate of useless phone calls, company can contact leads which have a conversion probability (value = 1 highlighted yellow) under column 0.7. But, we may miss out on those leads that are actually converted but then the model wrongly predicted them as not converted. (Red highlights).

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2	0	0.379980	9226	0	1	1	1	1	0	0	0	0	0	0	1	38
3	1	0.883056	4750	1	1	1	1	1	1	1	1	1	1	0	1	88
4	1	0.819253	7987	1	1	1	1	1	1	1	1	1	1	0	1	82
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8	1	0.757002	7536	1	1	1	1	1	1	1	1	1	1	0	1	76
9	0	0.798756	1248	1	1	1	1	1	1	1	1	1	1	0	1	80
10	0	0.714163	1429	1	1	1	1	1	1	1	1	1	1	0	1	71
11	0	0.151119	2178	0	1	1	0	0	0	0	0	0	0	0	0	15
12	0	0.052209	8554	0	1	0	0	0	0	0	0	0	0	0	0	5
13	1	0.601664	5044	1	1	1	1	1	1	1	1	1	0	0	1	60
14	1	0.497020	3475	0	1	1	1	1	1	0	0	0	0	0	1	50

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