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

**Answere**

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

1. 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?  
   **Tags  
   Last Notable Activity  
   Lead Profile**
2. 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:  
   **As per the current model, with the current cutoff 0.3 :**  
   **Accuracy** is approx. 90% ,   
   **Sensitivity : Predicted Converted Out of Actual Converted** : 0.82

**Specificity : Predicted Not Converted out of Actual Not Converted** : 0.95

**False Positive Rate : Predicted Converted when Lead Has Not converted** : 0.05

**False Negative Rate : Predicted Not converted When The Lead Has Actually converted :** 0.18  
  
**Confusion Metrix:**  
array([[3714, 191],

[ 449, 1997]], dtype=int64)  
  
out of 2446 Actual converted lead, model predicted 1997 leads which sales team can focus. To increase the sensitivity and approach as many lead as possible we can reduce the cutoff to 2 approx and get more leads to contact.  
  
As per the current model which has 82% of sensitivity, company can focus on resultant leads to increase there Lead Conversion ratio.

1. 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.  
   **As per the current model, with the current cutoff 0.3 :**  
   **Accuracy** is approx. 90% ,   
   **Sensitivity : Predicted Converted Out of Actual Converted** : 0.82

**Specificity : Predicted Not Converted out of Actual Not Converted** : 0.95

**False Positive Rate : Predicted Converted when Lead Has Not converted** : 0.05

**False Negative Rate : Predicted Not converted When The Lead Has Actually converted :** 0.18  
  
**Confusion Metrix:**  
array([[3714, 191],

[ 449, 1997]], dtype=int64)  
  
out of 3905 Actual non converted leads, model predicted 3714 leads which are really not converted and 191 leads got converted opposite to prediction. To increase the specificity , we can increase the cutoff to 5.3 approx so that sales team can only concentrate in actual lead.  
  
As per the current model company can check what are the chances of a lead to get converted and focus on those to increase the lead conversion rate.

