- **Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?**
    - The following features are displayed based on their significance in lead conversion as shown by their coefficient values.

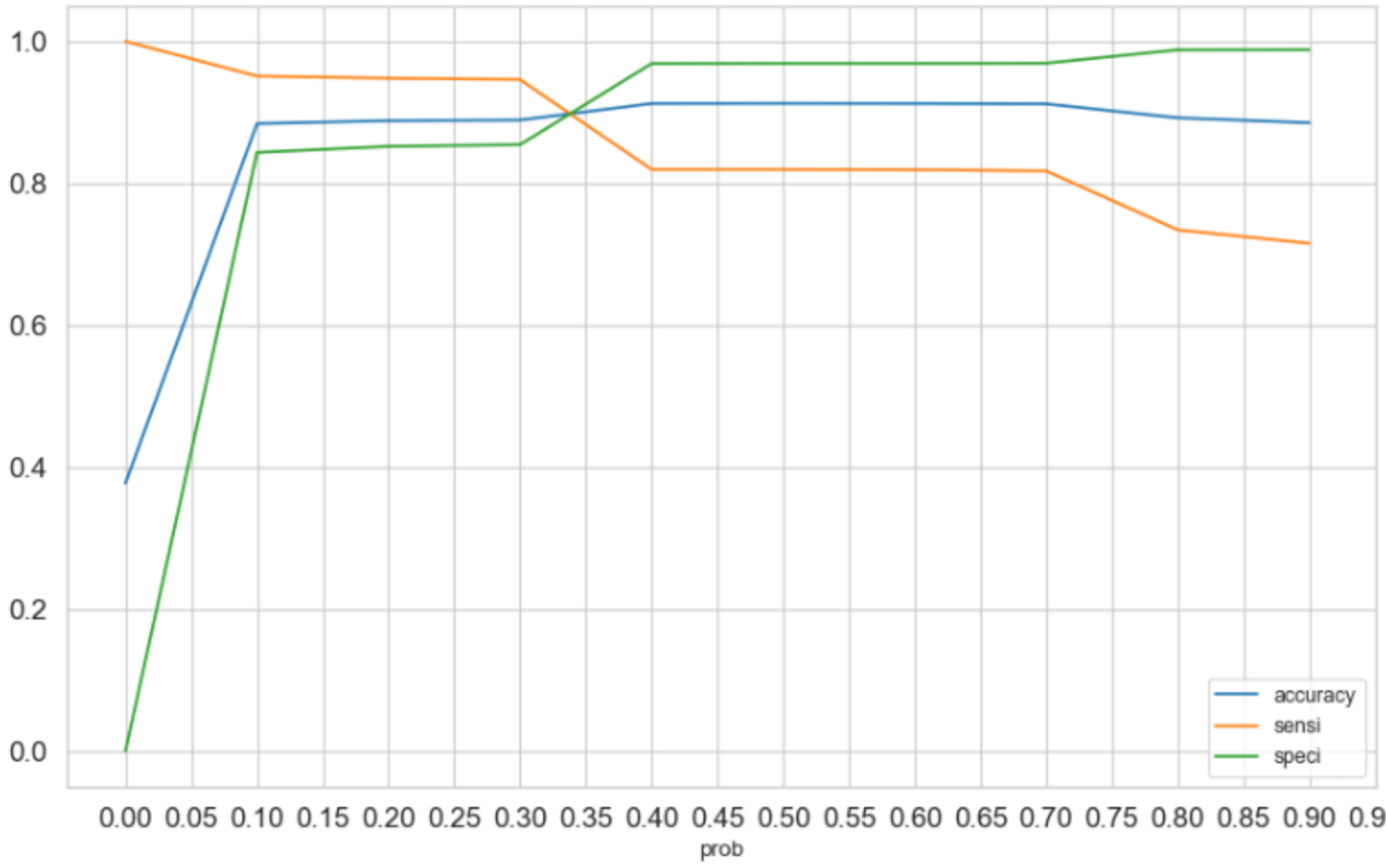
	index	0
7	Tags_Lost to EINS	100.00
4	Tags_Closed by Horizzon	81.12
10	Tags_Will revert after reading the email	57.67

    - According to the figure above, the top three factors that influence a lead's likelihood of conversion are as follows:
        - Tags_Lost to EINS
        - Tags_Closed by Horizzon
        - Tags_Will revert after reading the email

- **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?**
    - According to the figure above, the top 3 categorical/dummy variables that have the greatest effects on the likelihood that a lead will be converted are same:
        - Tags_Lost to EINS
        - Tags_Closed by Horizzon
        - Tags_Will revert after reading the email

- **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.**

    - According to our model, **sensitivity** is calculated as the sum of all real conversions that have been correctly predicted to all actual conversions.
    - The ratio of the total number of real non-conversions that were correctly predicted to the total number of actual non-conversions is what is known as **specificity**. For a specific model, when one goes up, the other goes down, and vice versa.
    - By altering the Conversion Probability cutoff threshold value, different values of the sensitivity and specificity can be obtained for the same model. The graph below for our model illustrates how the Sensitivity and Specificity rating varies as the threshold value changes:



- The sensitivity is very high and the specificity is very low when the probability thresholds are very low. Similar to smaller probability thresholds, greater probability thresholds have very low sensitivity values but very high specificity values.
- High sensitivity means that practically all leads who are likely to convert will be appropriately identified by our model. To achieve this, it will overestimate the likelihood of conversions, misclassifying some conversion events as non-conversions.
- **We may now select a lower threshold value for Conversion Probability** because X Education will have more personnel available for these two months and they want to make the lead conversion more aggressive by pursuing nearly all of the possible leads.
- This will guarantee a very high Sensitivity rating, which in turn will guarantee that practically all leads who are likely to convert are correctly identified and the agents can call as many of such persons as they can.

- **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.**

- High Specificity suggests that our model will properly identify almost all leads who are not likely to convert, using a similar logic and context to the prior query. To achieve this, it will misclassify some conversion cases as non-conversions, hence losing out to the competition on some dangerous low conversion rate leads.
- **We can set a higher threshold value for Conversion Probability** because X Education has already met its quarterly goal and doesn't want to make phone calls unless they are really necessary, or they want to reduce the number of pointless calls.
- This will guarantee that the Specificity Rating is quite high, which will ensure that practically all leads who are about to