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

* **Tags\_Lost to EINS** (Coefficient ≈ +4.41)
* **Tags\_Will revert after reading the email** (Coefficient ≈ +4.07)
* **Tags\_Closed by Horizzon** (Coefficient ≈ +4.03)

1. **What are the top 3 categorical/dummy variables in the model which should be focused the most on to increase the probability of lead conversion?**

|  |  |  |
| --- | --- | --- |
|  | Feature | Coefficient |
| 145 | Tags\_Lost to EINS | 4.414223 |
| 154 | Tags\_Will revert after reading the email | 4.073848 |
| 138 | Tags\_Closed by Horizzon | 4.030362 |

1. **X Education has a period of 2 months every year during which they hire some interns. The sales team 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 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.**

During the two-month intern hiring period, X Education gains additional bandwidth to engage with more leads through its sales team and interns. To capitalize on this increased capacity, the company should adopt an aggressive lead conversion strategy by **lowering the probability threshold used in the logistic regression model for classifying a lead as 'converted'.**

Typically, a lead is predicted as converted if its probability is **greater than 0.5**. However, during this high-effort phase, it is recommended to **lower this threshold to 0.3**. By doing so, a larger number of leads will be classified as potential conversions, allowing the interns and sales team to proactively reach out to a broader group of prospects, including those who may not have been prioritized under normal circumstances.

This approach ensures that:

* + - More leads are pursued during the period of increased manpower.
    - Borderline cases (with moderate conversion probabilities) are given attention and nurturing.
    - The overall conversion rate improves, as the sales efforts are maximized during the limited high-capacity window.

Additionally, leads can be **ranked by their predicted lead score**, and interns can focus on those

within a mid-range score (e.g., 30–70), which typically require extra persuasion and follow-up

convert.

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.**

Once X Education has reached its quarterly conversion targets ahead of time, the focus shifts from aggressive sales to **operational efficiency**. During this low-urgency phase, the goal is to **minimize unnecessary follow-ups and reduce wasted effort** by the sales team. A suitable strategy to achieve this is to **increase the probability threshold** used in the logistic regression model for classifying leads as likely to convert.

Instead of the standard threshold of **0.5**, it is advisable to raise the cutoff to **0.7 or higher**. This means:

* + - Only leads with a **very high probability of conversion (e.g., above 70%)** will be classified as “hot leads.”
    - The sales team will only make phone calls to the most promising leads, thereby **reducing the number of false positives** (i.e., leads predicted to convert but don’t).
    - This approach ensures that the time and resources are spent only on high-probability leads, **minimizing the rate of unproductive calls**.

Furthermore, using the **Lead Score** generated by the model, leads with a score below a certain threshold (e.g., **Lead Score < 70**) can be deferred or nurtured passively (e.g., through emails or newsletters) instead of active calling. This conserves effort while still maintaining a presence in the minds of potential future converters.