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

The top three variables that contribute most towards the probability of a lead getting converted, based on the provided logistic regression model, are:

1. Tags\_Will revert after reading the email (Coefficient: 6.9701)

2. Tags\_Closed by Horizzon (Coefficient: 9.2526)

3. Tags\_Lost to EINS (Coefficient: 9.9182)

These variables have the highest coefficients in the model, indicating a significant impact on the probability of lead conversion.

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?**

The top three categorical/dummy variables in the model that should be focused on the most to increase the probability of lead conversion are:

1. Tags\_Will revert after reading the email

2. Tags\_Closed by Horizzon

3. Tags\_Lost to EINS

These variables, based on their coefficients, have the most significant impact on the probability of lead conversion in the logistic regression model. Focusing on these aspects may enhance the likelihood of lead conversion.

1. **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.**

1. \*\*Top Three Variables:\*\* The top three variables contributing most to the probability of lead conversion are:

- Tags\_Closed by Horizzon

- Lead Source\_Welingak Website

- Tags\_Lost to EINS

2. \*\*Focus on Categorical Variables:\*\* The top three categorical/dummy variables to focus on for increasing the probability of lead conversion are:

- Tags\_Closed by Horizzon

- Lead Source\_Welingak Website

- Tags\_Lost to EINS

3. \*\*Aggressive Strategy for Intern Period:\*\*

- Prioritize leads with high predicted conversion probabilities.

- Conduct targeted phone call campaigns with personalized messages.

- Send follow-up emails reinforcing X Education's benefits.

- Introduce special offers or incentives for a sense of urgency.

- Involve interns in outreach, utilizing their assistance.

- Monitor results, adapt strategies, and leverage multiple channels.

- Implement a feedback mechanism for continuous improvement.

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.**

\*\*Optimizing Features in the Final Model:\*\*

Feature Engineering

- Explore opportunities for feature engineering.

- Create new variables that might capture additional nuances.

Interaction Effects

- Investigate potential interaction effects among features.

- Assess whether certain combinations yield more accurate predictions.

Model Interpretability

- Ensure model interpretability for key stakeholders.

- Provide insights into how top features influence predictions.

Sensitivity Analysis

- Conduct sensitivity analysis to gauge model robustness.

- Assess how variations in feature values impact predictions.

Strategic Phone Call Approach

-Optimize the phone call strategy for leads with a high probability of conversion.