Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

Salifort Motors seeks to improve employee retention and answer the following question:

What's likely to make the employee leave the company?

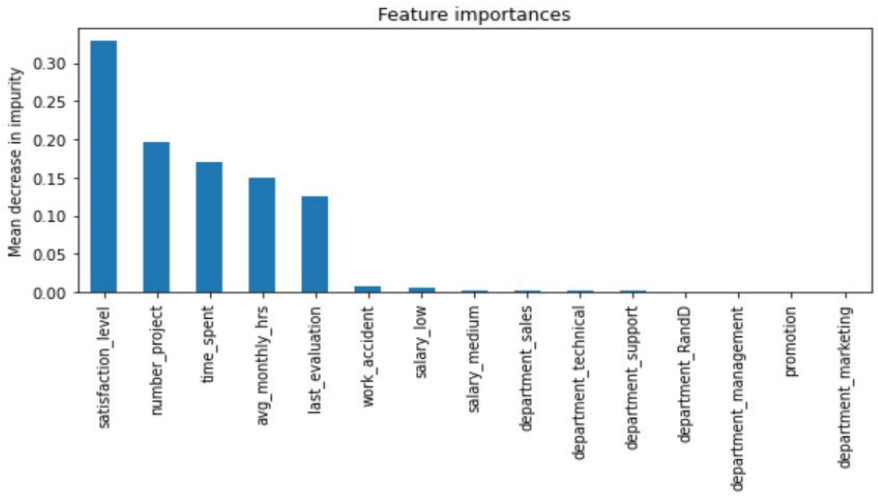
RESPONSE

Since the variable we are seeking to predict is categorical, the team could build either a logistic regression or a tree-based machine learning model.

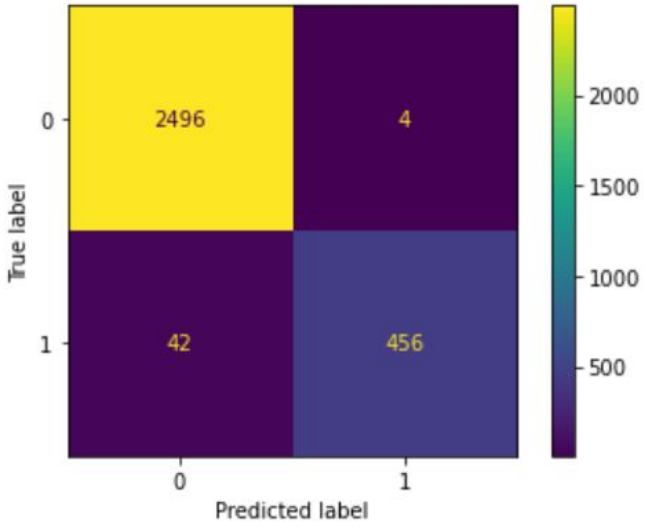
The random forest model slightly outperforms the XGBoost model.

IMPACT

This model helps predict whether an employee will leave and identify which factors are most influential. These insights can help HR make decisions to improve employee retention.



Barplot above shows the most relevant variables: *satisfcation_level, 'number_project', 'time_spent'* and *'avg_monthly_hrs'*.



In the random forest model's confusion matrix above, it shows how the model accurately identifies True Positives and True Negatives.

INSIGHTS/NEXT STEPS

- Limit the number of projects each employee can handle.
- For employees with four or more years at the company, consider promotion or explore reasons for any dissatisfaction among them.
- Either recognize longer hours or avoid expecting them.
- Ensure employees understand overtime policies, and clarify expectations on workload and time off.
- Facilitate discussions on company and team work culture to address specific issues.
- Avoid limiting high evaluation scores to those working 200+ hours monthly; instead, use a proportionate scale to reward varying contributions and efforts.