Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

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

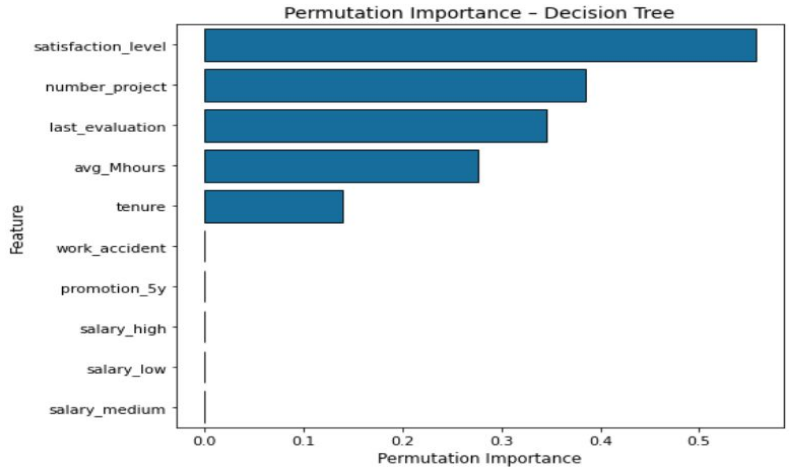
What's likely to make the employee leave the company?

RESPONSE

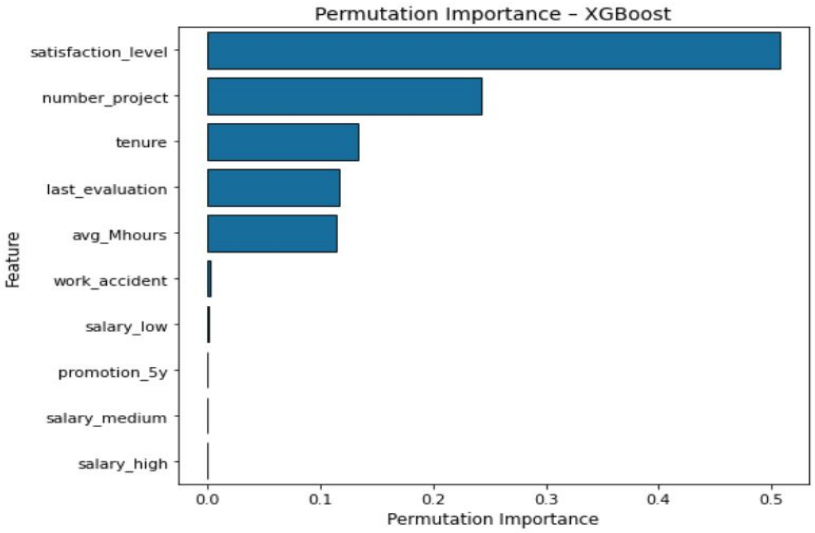
Since the variable we are seeking to predict is categorical, the team could build a logistic regression, a tree-based machine learning model or a XGBoost model. We build the latter two and they yield very similar results.

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: *'satisfaction_level', 'number_project', 'last_evaluation', 'avg_Mhours' and 'tenure"*.



In the XGBoost model above, 'satisfaction_level,' 'number_project', `*last_evaluation*`, *and* `*tenure*` have the highest importance. These variables are most helpful in predicting the outcome variable, `*left*`.

INSIGHTS/NEXT STEPS

- Pay more attention to workers' self-reported satisfaction levels, they are greatly indicative of retention-vs-leaving behavior.
- Cap the number of projects that employees can work on.
- Either reward employees for working longer hours, or don't require them to do so.
- Hold company-wide and within-team discussions to understand and address the company work culture, across the board and in specific contexts.
- High evaluation scores should not be reserved for employees who work a ton of hours per month. Consider a proportionate scale for rewarding employees who contribute more/put in more effort.