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?

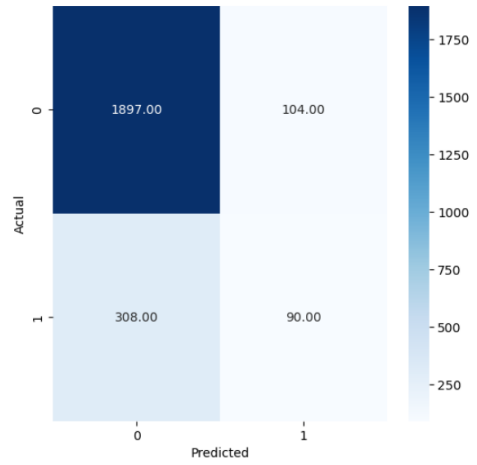
RESPONSE

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 like Random Forest.

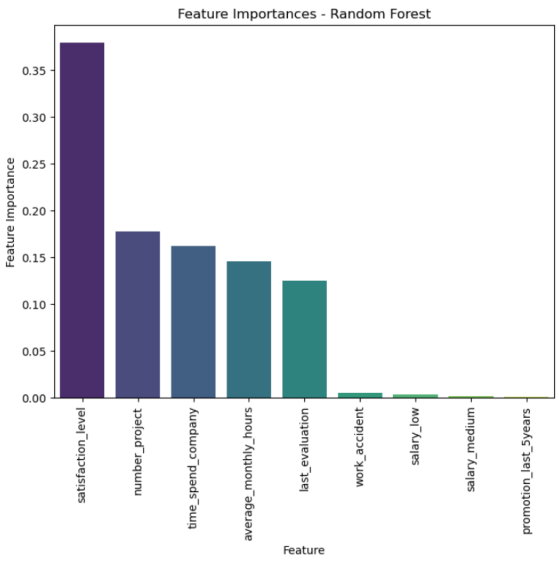
The random forest model significantly outperforms the logistic regression model.

IMPACT

This model can help predict whether an employee will leave and identify which factors are most influential. Knowing the important factors affecting retention rate could HR improve it.



Confusion Matrix for the Logistic Regression Model. Accuracy: 83 %.



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

INSIGHTS/NEXT STEPS

- Implement a limit on the number of concurrent projects each employee can undertake.
- Consider promoting employees who have been with the company for long years.
- Either reward employees for working longer hours, or don't require them to do so.
- Ensure that all employees are well-informed about the company's overtime compensation policies
- Facilitate company-wide and team-specific discussions to comprehend and address prevailing work culture issues, with a focus on promoting employee mental well-being.