Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

Salifort Motors want to prevent from their employees leaving their company and want to know the factors that influence their decision to leave.

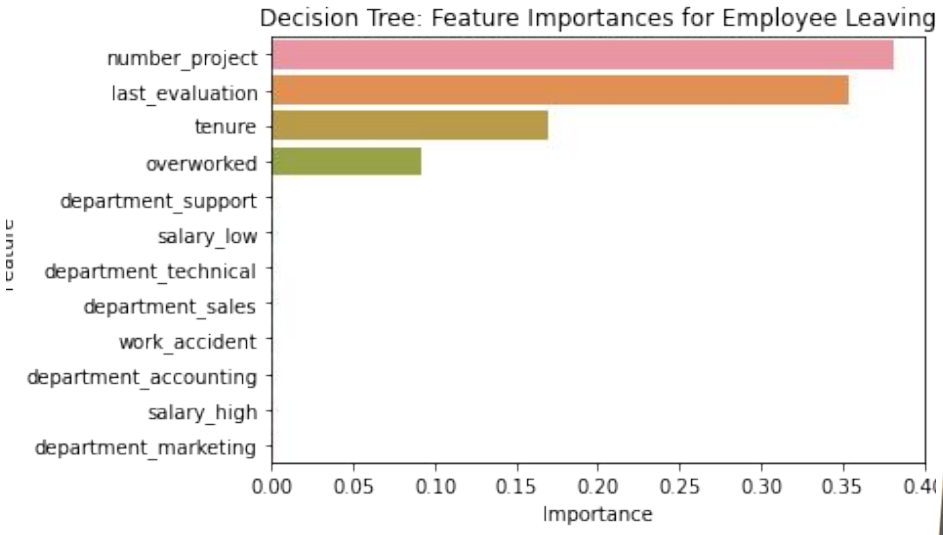
RESPONSE

Since the target variable is categorical, we could build either a logistic regression or a tree-based machine learning model.

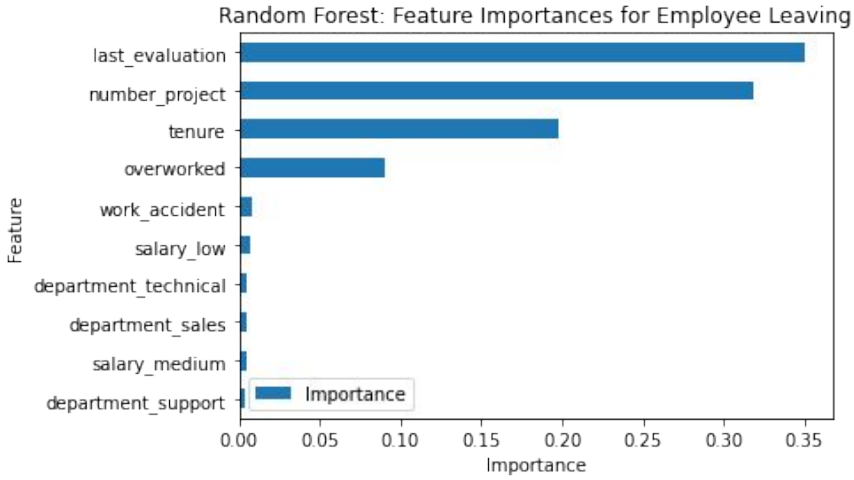
The random forest model slightly outperforms the decision tree model.

IMPACT

The model helps to predict whether an employee will leave and identify which factors are the most influential. These insights can help HR make decisions to prevent from their employees leaving.



In Decision Tree model, the most influential variables are *last_evaluation, number_project, tenure* and *overworked*.



In random forest model, the most influential variables are *last_evaluation, tenure, number_project, overworked, salary_low,* and *work_accident*.

INSIGHTS/NEXT STEPS

- Cap the number of projects that employees can work on.
- Consider promoting employees who have been with the company for at least four years, or conduct further investigation about why four-year tenured employees are so dissatisfied.
- Reward employees for working longer hours, or don't require them to do so.
- If employees aren't familiar with the company's overtime pay policies, inform them about this. If the expectations around workload and time off aren't explicit, make them clear.
- Hold company team meetings and discussions to understand and address the company work culture.
- Employees who work 200+ hours per month should be given a proper reward instead of high evaluation score to acknowledge their efforts.