Salifort Motors

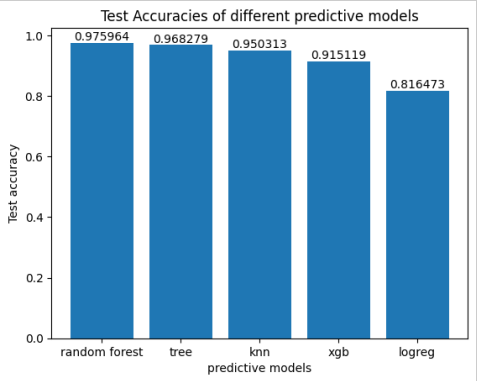
Employee Retention Project

ISSUE / PROBLEM

Because it is time-consuming and expensive to find, interview, and hire new employees, increasing employee retention will be beneficial to the company.
The HR department at Salifort Motors wants to take some initiatives to improve employee satisfaction levels at the company. They have the following question: what's likely to make the employee leave the company?
If you can predict employees likely to quit, it might be possible to identify factors that contribute to their leaving.

IMPACT

The model helps predict whether an employee will leave and identifies which factors are most influential. These insights can help HR departments make decisions to improve employee resignation.



RESPONSE

Since the target variable left_status we want to predict is binary, the team can build a logistic regression, tree-based classification model and knn model.
The random forest model performs slightly better than the decision tree model.

KEY INSIGHTS & RECOMMENDATION

Employees often leave the company because of low salary.
Employee resignation is associated with longer working hours, more projects, and generally lower satisfaction.
Working long hours without getting promotions or good evaluation scores can be unsatisfying.
Employees who have been with the company for more than six years will stay because they are satisfied with the company, even if some of them have worked long hours.
Work-related injuries do not directly lead to employees' resignation decisions.
Limit the number of projects an employee can work on.
Limit the working hours for all employees, if it's needed, give promotion and increase salary to these overworked employees.
Investigate the odd situation that employees with four-year tenures are so dissatisfied, try to find out the reason for it.
If employees are unfamiliar with the company's overtime pay policy, make it clear to them. If the requirements for workload and vacation time are unclear, make them clear.
A more fair salary plan should be designed, also consider the department factor.

Next Steps

Because evaluations may not be done very often and accurate, in which case predicting employee resignation would be useful without this feature, we should consider the results of the case where we remove "last_evaluation" from the data.
We should also consider using deep learning models for predictions, as they are likely to be more powerful classification models.