

Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

Many resources, both financial and time, go into new employees, from recruiting to training. When an employee leaves, this process must be repeated again for a replacement.

RESPONSE

To answer the question “What is likely to make an employee leave?”, we will explore the features that contribute to this. Then we will use a classification method to predict whether an employee will leave or not.

After trying logistic regression and tree based models, the Random Forest was chosen based on its highest evaluation score.

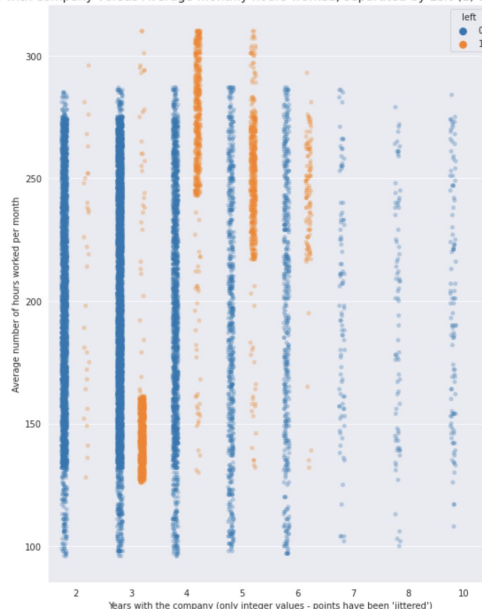
IMPACT

After choosing the best model, we can use its most influential features to inform HR at Salifort of measures they can take to improve employee retention.

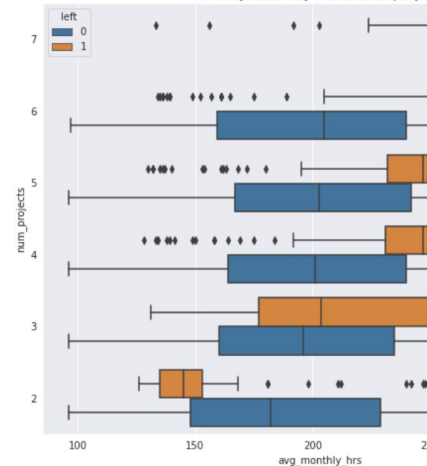
KEY INSIGHTS

- Employees should not work on a large number of projects
- Reward extra time worked, or discourage this extra workload
- After 4 years with the company, promotions should be highly considered, and if a promotion is not warranted, discuss a path to one with the employee to help improve employee satisfaction
- Find a way to have company-wide discussions of company culture
- Be careful with high evaluation scores - scores should be related to quality of work, not quantity of work

Years with company versus Average monthly hours worked, separated by Left (1) and Stayed (0)

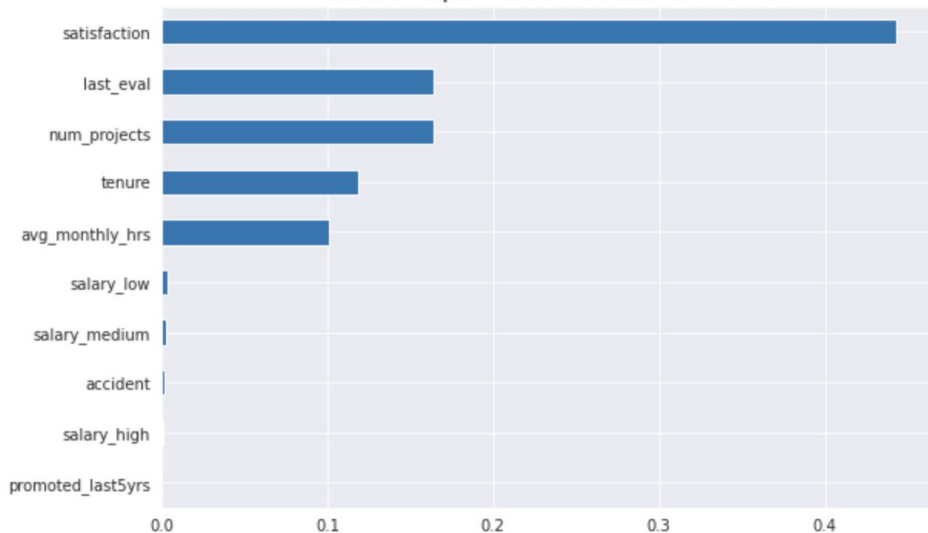


Monthly hours by number of projects



Comparisons involving monthly hours

Feature Importance for Random Forest



Bar plot showing that employee satisfaction, number of projects, and average monthly hours worked play a significant role in the model predictions.