

Saliford Motors

Employee Retention Project

ISSUE / PROBLEM

Saliford Motors seeks to improve employee retention by finding out the factors likely to cause employees to leave.

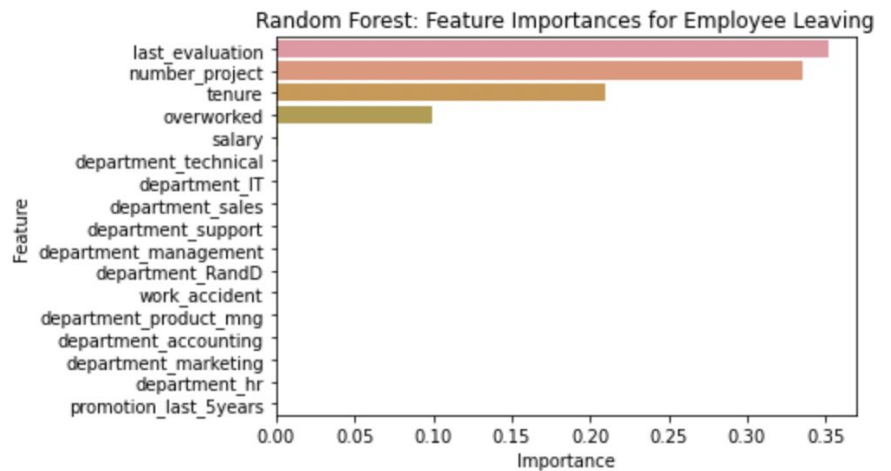
RESPONSE

Since the outcome variable is categorical, the data team has constructed logistic regression, decision tree, random forest and XGboost models for model testing and evaluation of performance.

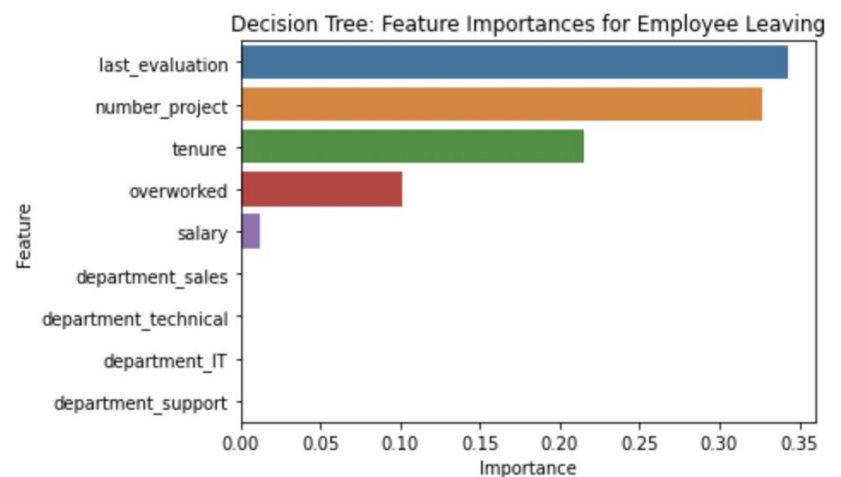
The random forest model ranked first based on a key metric, ROC-AUC.

IMPACT

The model allows accurate prediction of whether an employee would leave the company. It also identifies which factors are most important, providing key insights to HR for decision making.



The bar plot above shows that 'last evaluation', 'number_project', 'tenure' and 'overworked' are the most important for predicting whether an employee will leave using the random forest model.



The Decision tree model also shows the same features being identified as the most important predictors.

KEY INSIGHTS

- Cap the number of projects that each employee can contribute to at a time.
- Ensure that employees are evaluated highly not just for the hours they spend working but the amount of work contributed or efficiency.
- Hold organizational and within-team meetings to understand and address overworked culture.
- Reward employees who work long hours or prevent them from doing so.
- Inform employees about overtime pay policies while making workload and time off expectations clear.
- Consider promotions for employees who have stayed for >4 years or investigate the dissatisfaction of medium tenured employees especially at the 4 year mark.