

Salifort Motors Turnover Project

Employee Retention

Overview

Salifort Motors aims to leverage employee data to identify key factors contributing to employee turnover. By understanding these factors, the company seeks to implement strategies to improve employee retention.

Problem

What leads to an employee making the decision to leave the company? Can we identify the key factors that lead to this decision and accurately predict them?

Solution

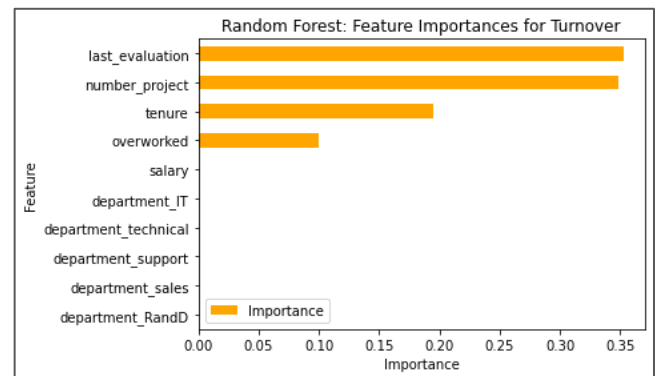
A classification approach was employed. Given the categorical nature of the target variable, logistic regression and tree-based models were considered. The random forest demonstrated superior performance, achieving higher accuracy, precision, recall, F1-score and AUC.

Details

Model analysis indicates a strong correlation between excessive workload and employee turnover. Employees working on a higher number of projects tend to have longer working hours, and this factor significantly impacts employee retention. Additionally, the data suggests a potential decline in employee satisfaction over time.

Recommendations:

- Workload Management.
- Performance Evaluation Reform.
- Retention Strategies.
- Culture Assessment.



Graphic of the feature importance in the Random Forest model.

Next Steps

To further refine the model and gain deeper insights, we should consider:

- Feature Engineering.
- Model Evaluation.
- Clustering Analysis.
- Time Series Analysis.