

Salifort Motors

Employee Retention Project

ISSUE / PROBLEM

Salifort Motors seeks to improve employee retention and answer the following question:

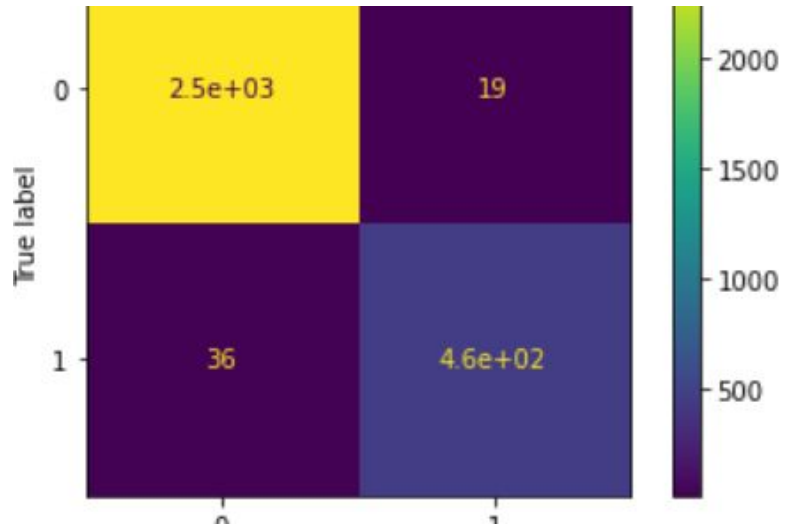
What's likely to make the employee leave the company?

RESPONSE

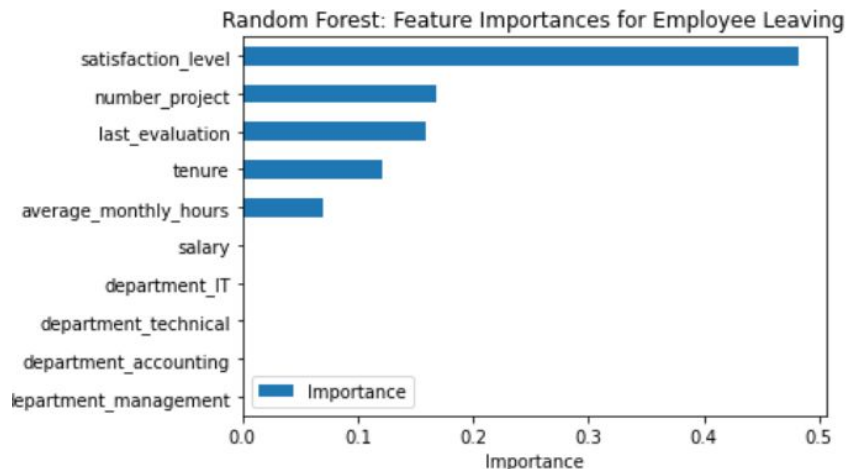
I cleaned and explored HR data, then built a Random Forest classification model to predict employee attrition and identify key factors influencing turnover, supporting HR in making data-driven retention

IMPACT

The model predicts likely employee attrition and highlights key factors like evaluation scores, workload, and tenure, enabling HR to take targeted actions to boost retention and satisfaction



The confusion matrix shows the model accurately predicts employee status with 98.2% accuracy. It's especially strong at identifying those who stay, though it misses some who actually leave.



The Random Forest model shows that employee satisfaction is the strongest predictor of attrition, followed by workload (number of projects, hours) and performance evaluations. Tenure and salary also contribute, while department type has minimal impact.

INSIGHTS/NEXT STEPS

- Limit the number of projects assigned to employees to reduce overwork stress.
- Investigate tenure effects and consider rewards or career development for long-term employees.
- Communicate clearly about overtime policies and workload expectations.
- Promote discussions within teams and leadership about workload and employee well-being.
- Monitor employees working excessive hours and consider appropriate compensation or support.
- Use the model's insights to design HR strategies tailored to retention risks.