EMPLOYEE RETENTION PROJECT

PROPLEM / ISSUE

Salifort Motors aims to improve employee retention and answer the following question: *What's likely to make the employyee leagve the company?*

KEY INSIGHTS FROM DATA ANALYSIS (EDA)

The analysis reveals a clear pattern of systematic overwork among departing employees:

- Excessive Hours: Leavers averaged ~243 hours/month, significantly higher than the ~199 hours of those who stayed.
- Burnout Threshold: Employees with 6+ projects showed extreme turnover rates, indicating a critical workload limit.
- High-Performer Risk: Attrition is highest among "high performers" (evaluations > 0.8) who report low satisfaction.
- Stagnation: Departing employees had virtually no promotions within the last 5 years.

MODEL RESULTS & PERFORMANCE

- Several classification models were trained and evaluated, including Logistic Regression, Decision Tree, and Random Forest
- The random forest model slightly outperforms the decision tree model.

Random Forest: Feature Importances for Employee Leaving
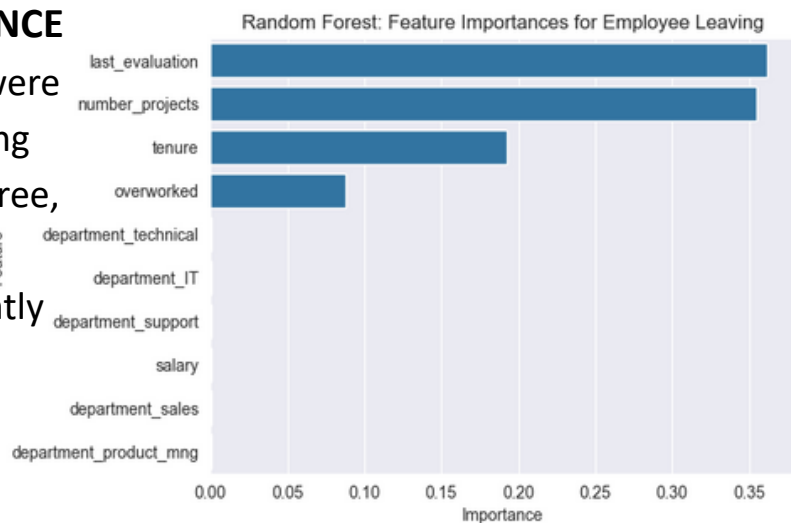
STRATEGIC RECOMENDATIONS

- Cap Project Assignments: Establish a policy limiting the number of simultaneous projects to a maximum of 5 per employee.
- Working Hours Monitoring: Proactively identify employees working over 200 hours per month to initiate workload reduction discussions.
- High Performer Recognition: Re-evaluate promotion and bonus structures, particularly for employees with a tenure of more than 3 years