

# Salifort Motors

## Improving Employee Retention

### ISSUE / PROBLEM

Current high employee turnover is costly.

How can Salifort Motors predict employee departure and proactively make changes to retain those employees?

### PREDICTIVE MODELS

#### XGBoost (Recall optimized) Model

Use to predict whether an employee will leave.

#### Random Forest (F1 optimized) Model

Use for more accurate overall view of employees predicted to both leave and stay.

The most important features are the same for each model (slightly different order of importance) in determining if an employee will leave.

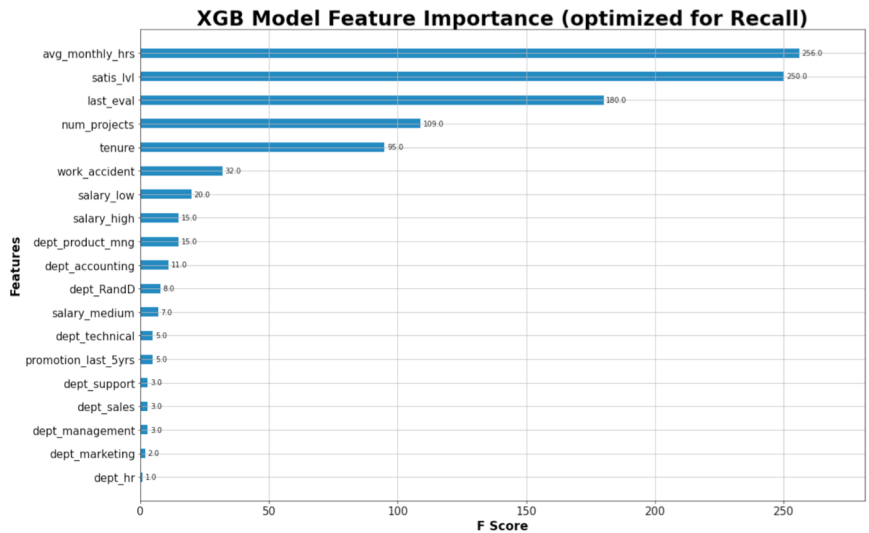
### KEY INSIGHTS

#### EMPLOYEES WHO LEFT:

- Many employees are overworked and not rewarded
- Low satisfaction scores tied to combinations of 240+ AVG monthly hrs, 6-7 projects, low salaries, no promotions, 4-6 years tenure
- All employees with 7 projects left the company

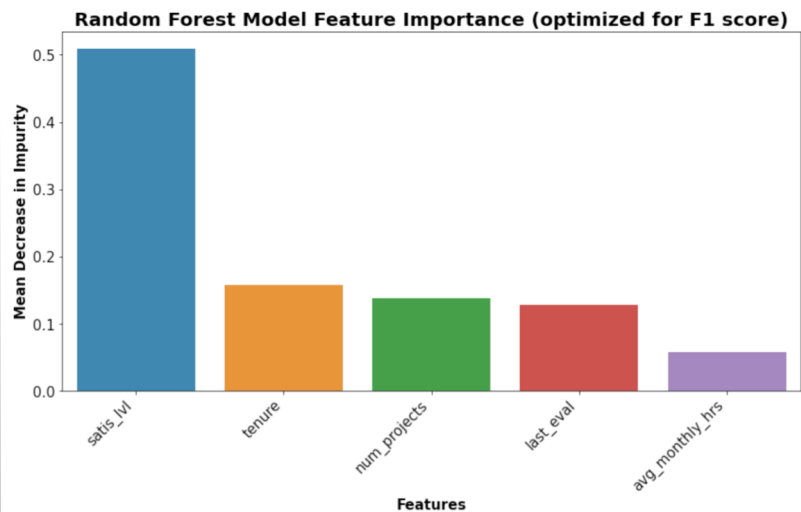
#### EMPLOYEES WHO STAYED:

- 140-160 AVG monthly hrs, 3-4 projects, higher salaries
- All employees with 7+ years tenure stayed



#### XGBoost Model Top 5 Important Features

1. 'avg\_monthly\_hrs'
2. 'satis\_lvl'
3. 'last\_eval'
4. 'num\_projects'
5. 'tenure'



#### Random Forest Model Top 5 Important Features

1. 'satis\_lvl'
2. 'tenure'
3. 'num\_projects'
4. 'last\_eval'
5. 'avg\_monthly\_hrs'

### RECOMMENDATIONS

- Normalize 8-hour workdays and make it clear that results are what's important for evaluations, not number of hours worked
- Assign no more than 3-4 projects to employees; definitely no more than 5
- Provide incentive packages to top talent and 4-5 year tenured employees, including promotion, higher pay, time-based restricted stock, etc.
- Realign salaries based on employee value provided to the company; high evaluations should entail commensurate rewards
- Conduct regular company-wide Organizational Health Surveys to gather more wide-ranging in-depth employee satisfaction data to keep managers and team-members engaged with working culture improvement over time
- The company has a high accident rate; conduct root cause analysis and implement measures to remove/mitigate hazards

#### NEXT STEPS

- Hold company town hall to present analysis results and way forward for improvement
- Train predictive models on full dataset and deploy for predictions