Salifort Motors

Employee Retention Project

▶ ISSUE / PROBLEM

The main objective of Salifort Motors is to increase the retention of its employees and, on the other hand, to understand the reasons why an employee leaves the company.

▶ RESPONSE

Due to the fact that the variable we seek to predict is of the categorical type, the team opted for the machine learning models: random forest and XGBoost.

The random forest model has a slightly better performance.

▶ IMPACT

The models can predict which employees are susceptible to leaving and what factors may affect this decision. This information can help HR department to make decisions and create plans to increase employee retention.
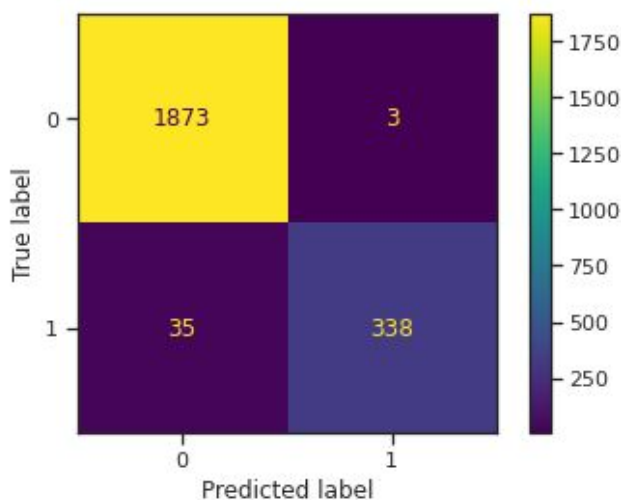
The confusion matrix shows the performance of the Random Forest model, the false negatives (recall) are low, only 9.3% of the employees who left are classified as retained.
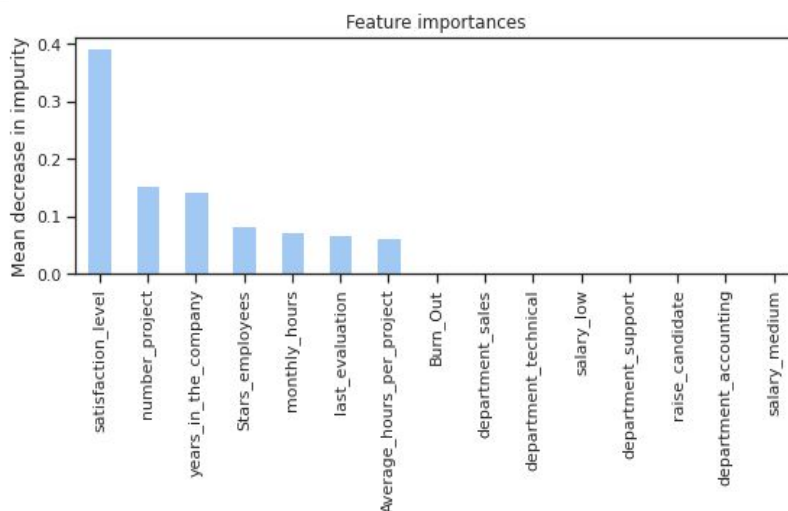
In the Random Forest model above: 'Satisfaction_level', 'Number_Projects','years_in_the_company','Stars_employees','Monthly_hours' and ' last_evaluation' have the highest importance. These variables are most helpful in predicting the outcome variable, `left`.

▶ INSIGHTS/NEXT STEPS

- Increasing incentives and promotion for employees who have a period of 3 to 4 years.
- Implement a reward scheme that is proportional to the outstanding results and performance of employees and not to the hours worked.
- Re-evaluate the evaluation criteria so that longer working hours are not synonymous with good performance.
- Ask questions within the internal employee satisfaction evaluation about their work experience within the period in which the evaluation is carried out, objectives within the company. Finally, these data are evaluated and discussed in order to make changes to the work culture if necessary.
- Inform employees, in case they are not familiar with it, about the work policies on the job explicitly. This is to avoid different expectations of workers once they are part of the company.
- Finally, it would be necessary as a continuation of this project to further evaluate why time within the company is a reason for attrition, with people within a period of 4 years or less being the main group affected.