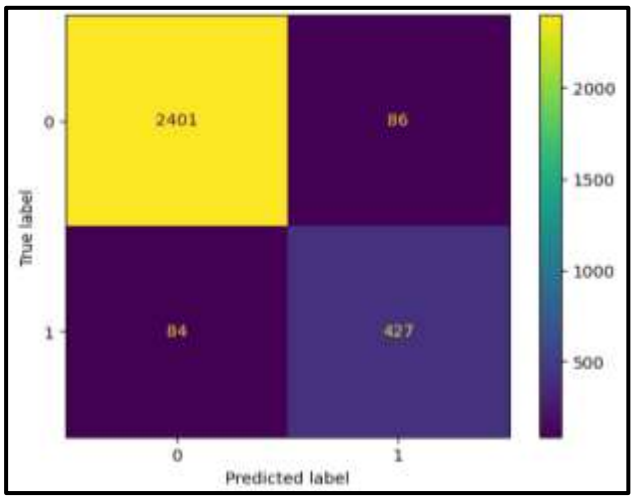
Salifort Motors Employee Churn

By Data Analysis Team

OVERVIEW

To predict using a machine learning model whether an employee will leave the company, and discover the reasons behind their departure, so as to better understand the problem and develop a solution.

CONFUSION MATRIX



The plot show the number of times the mode correctly and incorrectly classified.

NEXT STEPS

- It is recommended to decrease the working hours of the employees and decrease the projects assigned to them.
- Also, the work life quality of employees could be increased by decreasing no. of working hours and to provide promotions to overworked and inspect policy at the 4 working years.

KEY INSIGHTS

- It seems that the employee work culture is not that good.
- Most employees are overworked still didn't receive any promotion for a long time.
- Employees have more than average projects.
- The mean satisfaction score of employees is also on the lower side.
- Long tenured employees usually didn't have high salaries - leading to tendency to quit after a few years (mostly 4 maybe also due to some policy change at this point).
- But those who spend 6+ years in the company tend not to leave.
- The left column's correlation with *satisfacton_level* is -0.4 and with tenure is 0.2.
- Also *number_project*, *last_evaluation* and *average_monthly_hours* are positively correlated with each other.
- An employee leaving depends highly on the parameters: No. of projects assigned to them, their tenure and if they are overworked or not.
- The Random Forest model built had a high ROC_AUC score of 96% and thus predictions made by it on employee churn can be relied on.