

Salifort Motors Project

Analysing employee turnover

OVERVIEW

Salifort Motors has been experiencing high turnover, leading to increased costs in recruitment, training, and upskilling. Through exploratory data analysis and the creation of predictive models on employee surveys, this project aims to find insights into the reasons for the high turnover, and to predict which employees might leave.

PROJECT STATUS

Exploratory data analysis conducted on employee survey data.

Predictive models that aim to predict which employees might leave in future have been created.

Suggestion have been provided to further explore reasons for high turnover, and to find potential solutions.

NEXT STEPS

Potentially training predictive models for satisfaction levels and evaluation scores.

Investigation into the company working culture, with overworking at the forefront.

Exploration into the reasons for leaving amongst high value employees with high evaluation and satisfaction scores.

KEY INSIGHTS

EXPLORATORY DATA ANALYSIS

It was found that satisfaction level, last evaluation, average monthly hours, and number of projects had strong influence on employees who left.

Three clusters/demographics of employees who left were also identified:

1. Poor performers who had weak last evaluation scores, few projects, or low work hours
2. Overworked employees who had too many projects or worked too many hours
3. Strong performers who reflected that they were satisfied but still left

PREDICTIVE MODEL

Random Forest and XGBoost models were trained and tested with the data, and were both found to have high performance and accuracy in predicting which employees had left. The XGBoost model was marginally better.