

# Salifort Motors

## Executive summary: Employee Leaving Model

### ISSUE / PROBLEM

Currently, there is a high rate of turnover among Salifort employees. the high turnover rate is costly in the financial sense.

Salifort's senior leadership team has asked the data team to build a model to predict employee leavings, and to come up with ideas for how to increase employee retention

### RESPONSE

- The data team as performed exploratory data analysis on the dataset at hand.
- Initial insights were made by analyzing visual patterns.
- A champion XGBoost model was selected which predicted leaving with high score.
- A reshuffling in train-test data is suggested to make sure the model is not overfitted to current data.

### IMPACT

Making decisions to regulate the most important features to minimize leaving, e.g.:

- policing average\_monthly\_hours
- regulating number\_projects
- motivating packages for employees between 3 to 5 years of presence in the company.
- motivating packages for well-performed employees.

### KEY INSIGHTS

- top important features:
- `department` has no significant effect on leaving.
- The main score of interest was `recall`, with **93% score**; only **7%** of actual leaving employees are mispredicted as retaining.
- `satisfaction\_level` must be examined in more details, as it certainly contains fundamental criteria for leaving or retention.

