Employee Retention Project Proposal

Salifort Motors seeks to improve employee retention.

Phase	Task(s)	Deliverable(s)	≈Time
Planning	Stakeholder Engagement Define/Refine Problem Question Goals & Objectives clearly outlined Project Scope Framed Data Familiarization Project Viability Determination KPI's Agreed Upon	Documentation: • Project Proposal • Dara Architecture • Data Strategy • GRC Framework Update Stakeholders	2-3 weeks
Engineering	Architecture Implementation Data Ingestion Data Transformation Testing & Validation Automation	Data Model Update Stakeholders	3-5 weeks
Analysis	Data Cleaning Exploratory Data Analysis (EDA) Statistical Analysis Data Visualization Model Determination	Executive Summary: • EDA Results Update Stakeholders	2-4 weeks
Construction	Data Preparation Confirm Assumptions Model Construction Model Evaluation Model Interpretation Data Storytelling	Executive Summary: • Predictions • Actionable next steps Update Stakeholders	2-4 weeks
Execution	Deliver Findings Feedback Incorporated Model Updated Model Deployed MLOps CI/CD Initiated Knowledge Transfer Project Wrap-up	SweetViz Report Update Stakeholders	3-4 weeks

STAKEHOLDER SIGN AND DATE	WITNESS SIGN AND DATE
Stakeholder	*Witness*

Employee Retention Executive Summary

Salifort Motors

OBJECTIVE

Determine the most influential factors impacting employees' decision to leave the company, predict employees most likely to next leave, and provide actionable insights to improve retention.

SOLUTION

Salifort Motors' Human Resources (HR) department surveyed a sample of employees to learn what might be driving the high rate of turnover. That data was analyzed by the Advanced Analytics team to determine the most influential factors impacting employees' decision to leave the company, predict employees most likely to leave, and provide actionable insights on how to improve retention.

ANALYSIS RESULTS

Data analysis revealed that the prominent factors influencing employees' choice to depart are the number of projects they are working on and the average number of hours they work per month, as shown in *Figure A*.

The topmost boxplot in *Figure A* confirms that ***all*** employees with 7 projects had the most hours and ended up leaving the company.

Of the overworked employees that had been with the company for over 3 years with no work accident, only 1 was given a promotion within the past 5 years. Their salary was still low and they still chose to leave.

For more details, please refer to the html report, *Salifort-Motors-Employee-Retention-Report*.

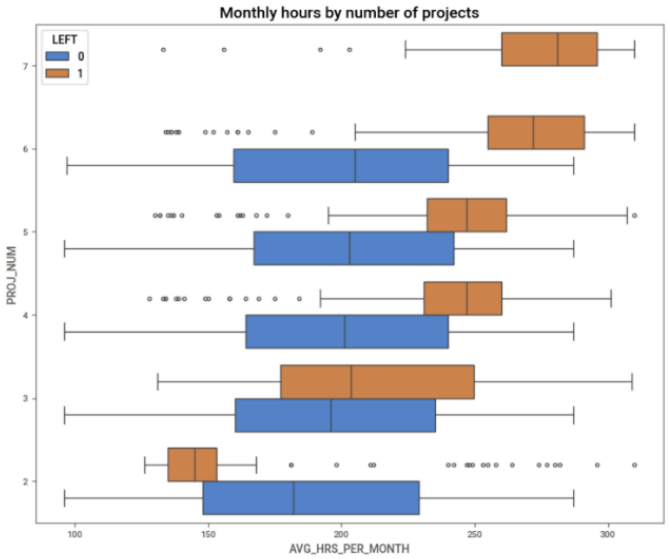

Figure A: Boxplot showing the relationship between the employees that left (orange) verses stayed (blue), their number of projects (y-axis), and average workhours per month (x-axis).

PREDICTIONS

The data science team employed an xgboost machine learning model to predict which employees are most likely to leave the company in the near future. Leaving is tied to longer working hours, many projects, and no recognition or promotion in the recent past. Lower satisfaction levels along with last evaluation scores are also factors. There's a sizeable group of employees at this company who are probably burned out. It also appears that if an employee has spent more than six years at the company, they tend not to leave.

NEXT STEPS

- Cap the number of projects that employees can work on.
- Promote employees who have been with the company for at least three years to a salary matching the national average, at the very least.
- Reeducate management as there seems to be a sizeable gulf between them and employees.
- High evaluation scores should not be reserved for employees who work 200+ hours per month. Consider a proportionate scale for rewarding employees who contribute more/put in more effort.