Salifort Motors Employee Retention Project

What's likely to make an employee leave the company?
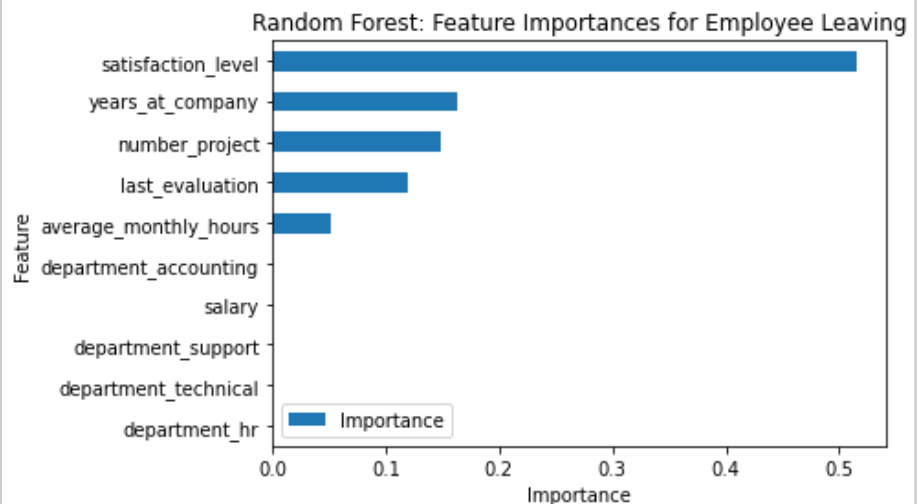
Project Overview

Take initiatives to improve employee satisfaction levels at the company by building a model that predicts whether or not an employee will leave the company and determining which features impact employee retention the most.

Details

	model	precision	recall	F1	accuracy
0	Logistic Regression	0.793950	0.823635	0.802711	0.823635
1	Random Forest	0.983309	0.983289	0.983041	0.983289

Random Forest: Feature Importances for Employee Leaving

Key Insights

- The Random Forest Model was best at predicting the target variable with high scores on all metrics. This model helps predict whether an employee will leave and identify which factors are most influential.
- Satisfaction level is the greatest predictor of employee retention.
- Years at company, number of projects, last evaluation and average monthly hours are also strong predictors of employee retention.
- Most of the employees that leave the company have been working between 3 and 6 years.
- Employees that work on average over 275 hours per month and have not been promoted in the last five years have a high chance of leaving.
- The majority of employees that left the company are working on 6-7 projects.

Next Steps

- Consider another employee satisfaction survey and run the model with new satisfaction level data then consider having conversations with employees at risk of leaving the company according to the model.
- Consider putting a cap of 5 on the number of projects an employee can work on.
- Consider promoting employees that have been around for 5 years.
- Reward employees for working longer hours.