

Employee Retention Prediction project proposal

Overview

This project is intended to help the leadership team of Salifort Motors come up with ideas to increase employee retention for the company. The model to be created will predict whether an employee will leave the company based on their department, number of projects, average monthly hours, and any other data points that are deemed helpful.

Milestones	Tasks	PACE stages
1	Review the data dictionary	Plan
2	Perform EDA	Analyze
3	Split the data into training, validation, and test sets	Construct
4	Build models of different architectures <ul style="list-style-type: none">Fit the models using training data with cross-validation when applicable.	Construct
5	Use validation set to compare the tuned model of each different architecture to get an objective comparison of their performance. <ul style="list-style-type: none">Display confusion matricesDisplay feature importance plotsChoose the champion model's architecture and hyperparameters with the best validation metrics	Construct
6	Train the champion model with the chosen architecture and hyperparameters and use both training and validation sets. <ul style="list-style-type: none">Use the champion model to predict on the test set to get a measure of future performance.	Construct
7	Prepare the champion model's metric value results, feature importances, and the interpretation of the results for presentation <ul style="list-style-type: none">Present the results and make recommendations to the stakeholders	Execute