

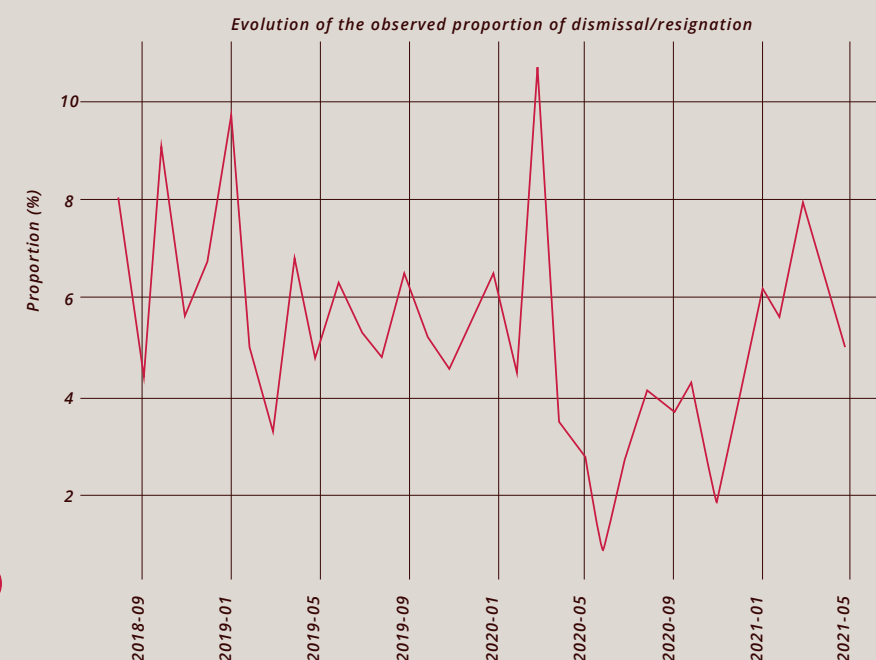
REFINANCIA

Business overview:

Refinancia is a debt collector based on main principles such as “seeing the Colombian as a client but not as a debtor”. Their main lines of business are financial collect management and recovery.

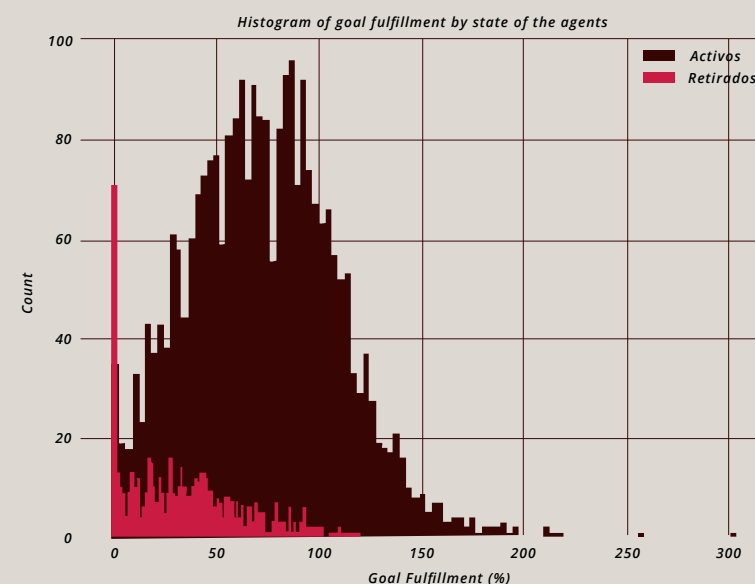
Problem definition:

The problem to be addressed is to recognize the series of factors that lead an agent to leave the company to be later replaced on the workspace (turnover). The aim of the project is to develop and deliver a high-end analytics tool for estimating which agents are likely to either leave his job or be replaced on the workspace.



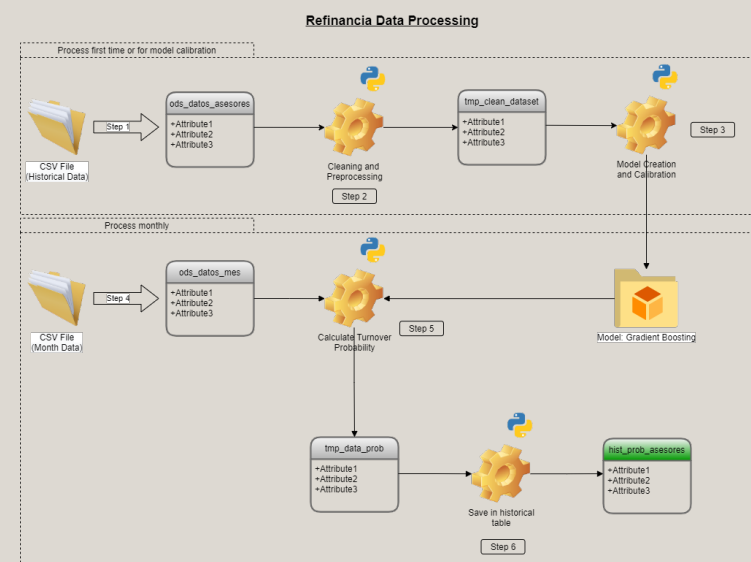
Data description:

The company has given us a dataset which contains information about their teams, performance of their employees and sociodemographic characteristics, such as their place of residence, family composition, seniority in the company, among others.



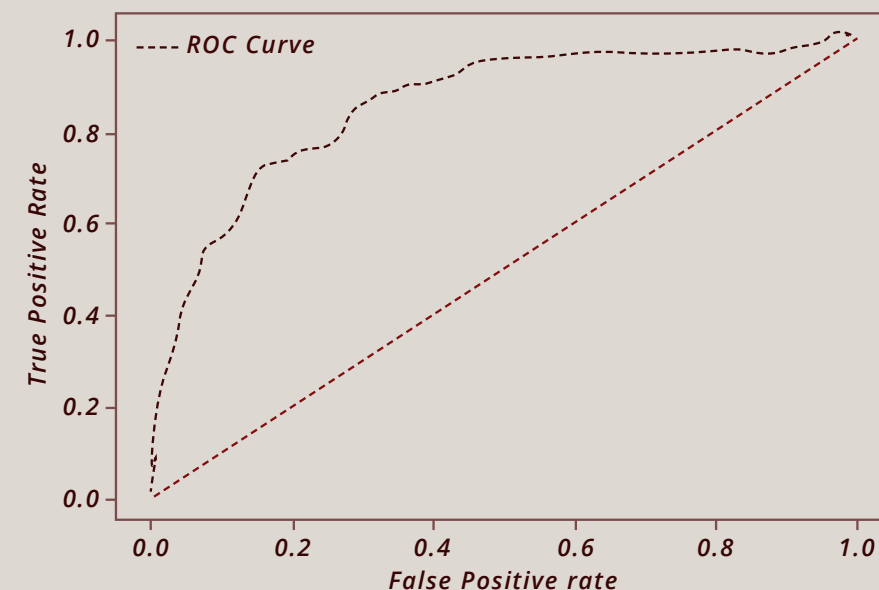
Data process:

In order to estimate the probability of a worker leaving the company for either reason (resignation or being fired), a gradient boosting model is applied to the received data.



Model comparison:

To compare the performance of both models, the value of the ROC area under the curve was used. Both models had great classifications since the lowest value was 0.8, but the gradient boosting got the highest value with 0.849.



Results:

We find that, on the part of gender, the data show a tendency for men to resign more than women.

It is vital that the Refinance dedicates some attention to these new workers, for example, establishing accompaniment campaigns for said sector of employees.

It is worth recommending to establish an action plan from a holistic perspective, where it not only focuses on a general variable, but on the sum of these.