Predictive analysis using Machine Learning Algorithms.

Abstract

Machine Learning algorithms are extensively used to predict future outcomes based on past experiences that were recorded in a meticulous manner. These past experiences or data can help us to deduce preliminary insights about the data and what it represents. For example, by analysing the weather data from the past year, we may ascertain the conditions leading to rain or climate change. In this paper we have discussed few Machine Learning algorithms that are helpful in problems where we need to classify the input in one of the two categories. We will be focusing on the employee attrition dataset that gives us various insights on the main or presumable reasons for an employee to leave the company. We have applied various machine learning algorithms and have compared their accuracy, precision score, recall score and f1_score. We have also implemented hyperparameter tuning using the 'RandomSearchCV' python library on the better performing algorithms in search of better results.