Executive Summary

Employee attrition is the process by which employees in a company depart from the labour force either due to personal or professional reasons, and are not instantly replaced. Some types of attrition are inevitable, like if an employee is retiring or is moving to a different place. Employee attrition is unavoidable as all workers would have to leave a company at some point in time for various reasons. Sometimes, employees leave a company faster than they are hired, like when a new office is set up by a company at a different location and employees are not ready to relocate. Other more serious reasons for attrition include insufficient professional growth, a demeaning company environment, lack of confidence in the organization’s values or substandard leadership.

In our project, we try to enhance a previously developed algorithm to predict employee attrition using different parameters such as age and salary. The previous papers use standard classification algorithms such as k-NN algorithm. In our approach, we would be testing SMOTE as the over-sampling technique and compare it to the other sampling techniques used in previous papers to correctly predict employee attrition.