

ABSTRACT

Imbalance class represents imbalance in number of training data between two different classes. One of the classes represents rare case. The number of the anomaly training data which is used will relatively small when it is compared to amount training of normal case. One of data mining methods which is used to predict data is Classification. Recently, some existing classification methods are more addressed for the well-balanced training data which purposed to maximize the overall accuracy. Those existing methods aren't proper to imbalance class problem, so that those methods can't give a good performance in classifying imbalance class problem. One of new algorithm which is used to solve imbalance class problem is CREDOS (Classification Using Ripple Down Rule) algorithm.

In this final project, had been analysed the imbalance class characteristic, the performance of CREDOS algorithm before and after pruning model, the performance of CREDOS algorithm in clustered data and unclustered data, the strengths and weaknesses of CREDOS algorithm, the performance of CREDOS algorithm compared to another classification methods such as Decision Tree, Naïve Bayes, OneR, and Balancing Tree.

The result shows that CREDOS algorithm compared to some existing method such as Decision Tree, Naïve Bayes, and OneR has good performance in classifying imbalance class problem. The weakness is the performance of CREDOS algorithm in classifying unclustered data was not as good as performance of CREDOS algorithm in classifying clustered data.

Keywords : Classification, CREDOS algorithm, and Imbalance Class.