

## Abstract

*Rule classifier* is one of methods used in data mining and can be obtained from *decision tree*. Rules obtained from *decision tree* can be classified into *small disjunct* and *large disjunct*, based on the number of correct data covered. *Small disjunct* is rule that covers small numbers of correct data, so that often cause errors in the classification of testing data. Although a *small disjunct* covers data that is relatively small, groups of *small disjunct* can covers data in a large amount. However, the appropriate approach is needed to deal with this *small disjunct*.

This final task will built genetic algorithm to overcome the *small disjunct* problem in the *decision tree*. The *decision tree* algorithm used is J48, which is a variant of the C45 programming language developed in java. There will be some small modifications made so that the J48 can identify rules into *small disjunct* or *large disjunct*. The final model that will be built is a combination of *large disjunct* and classification rule generated by the genetic algorithm.

In the process of analysis, six data in numeric type will be used to measure the accuracy performance of the solution built and will be compared with the other classifier. In addition, in the analysis process, it will also be shown how big is the classification errors caused by *small disjunct*.

**Keywords:** *rule classifier, decision tree, J48, small disjunct, genetic algorithm.*