Abstract

In the real world, most of the data are high dimensional which become a challenge in data mining. To overcome those problem, we need to do a process called feature selection. Feature Selection intends to reduce the number of feature by removing some features that are considered to be irrelevant or redundant in hopes to increase learning accuration in data mining process, also feature selection can increase the chance in classification to find a better model. This final project implements cat swarm optimization, one of many swarm optimization method, to be used in feature selection. The use of exhaustive search in feature selection process are tend to cause a problem in how big the computational cost that are needed in doing so, that is why this final project is using optimization search method, which is cat swarm optimization. In evaluating quality of the system, misclassification rate is used on feature subset which are the result of feature selection process using cat swarm optimizatiom. According to the evaluation it is proven that feature selection process using cat swarm optimization can cause the increase on the classification accuration.

Keywords: *data mining, feature selection, cat swarm optimization, misclassification rate*