Abstract

The benefits of finding trends in large volumes of data has driven the development of data mining for over a decade. The induction of generalizable rules, including classification rules, involves the simultaneous optimization of several (possibly conflicting) objectives.

Genetic Algorithm have become the de-facto standard for solving such multi objective problems because by their very nature, they work with a whole set of solutions, each potentially encapsulating a trade off between the different objectives. This final project will implement a multi objective genetic algorithm, called Restricted Tournament Selection algorithm, to the problem of finding classification rules.

Keywords: rule induction, classification, genetic algorithm, multi objective optimization, Restricted Tournament Selection (RTS).