

Choosing Parameters for Genetics Algorithms

One of the difficulties in working with Genetic Algorithms (GAs) is choosing the characteristics of the fitness function, selection mechanism to be used, crossover and mutation probability appropriate for solving a particular problem. Besides the difficulty of the application problem to be solved, an additional difficulty arises because the quality of the solution found, or the computational resources required to find it, depends on the selection of the Genetic Algorithm's characteristics. That is, finding a correct fitness function and appropriate operators and parameters to solve a problem with GAs is itself an optimization problem. The goal of this research, then, is to gain some insight into the difficult problem of finding a good fitness function and good operators to solve a problem with a GA.

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