1 Theory

1.1 Basic Components

The following are the most basic components that are present in most genetic algorithms:

1. Fitness function for optimization.

2. Population of chromosomes.

3. Selection of chromosomes for reproduction.

4. Crossover to produce the following generation of chromosomes.

5. Random mutation of chromosomes in the following generation.

1.1.1 Fitness Function

Fitness is a term from biology which defines the extent to which a certain type of organism is able to pass itself onto the next generation, based on the way a given organism does its job. It can be stated with the following question: which survival form will pass the most copies of itself onto the next generation?

In the context of genetic algorithms, fitness ...

1.1.2 Population of Chromosomes

2 Bibliography

Carr, J. (2014). An Introduction to Genetic Algorithms. https://www.whitman.edu/Documents/Academics