

Honors Lab 2

3.17.2010

The Problem

A genetic algorithm consists of a *population of individuals*, where each individual is a bit string (i.e., a list of 0's and 1's) and an associated fitness value indicating the goodness or badness of the individual. At the start of the genetic algorithm, each individual in the population is randomly initialized and the its fitness assessed.

Your Task

1. Create a population of 100 random individuals. Each individual should be a list of length 100 and a float value that represents its fitness. (Hint: Extend the code you wrote for part 1 that created one random individual.)
2. Evaluate the fitness of all the individuals in your population using the counting ones fitness function you wrote last week. Store the fitness value with the individual.