## Harpreet Singh

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Code Repo: https://github.com/harpreets652/genetic-algorithms-submit

**Algorithm:** Using the solution to the simple hill climber (first have 1's, and the rest 0's) which evaluates to a fitness of 70, the algorithm randomly flips a random number of bits in the second half of the candidate solution vector. Even with 500,000,000 million iterations, the algorithm could not find a solution with a fitness greater than 70.

**Output:** After every million iterations, the time and current best fitness score harpreetsingh@ubuntu:/mnt/hgfs/harpreetsingh/github/genetic-algorithms/HillClimber\$ g++ - std=c++0x -pthread -o secondClimber RandomHillClimber.cpp provided/eval1.o

har preets in gh@ubuntu:/mnt/hgfs/har preets in gh/github/genetic-algorithms/HillClimber \$./secondClimber

launched 1 threads iteration: 0, Tue Sep 12 14:47:33 2017 ---->current fitness: 0 iteration: 1000000, Tue Sep 12 14:47:37 2017 ---->current fitness: 70 iteration: 2000000, Tue Sep 12 14:47:41 2017 ---->current fitness: 70 iteration: 3000000, Tue Sep 12 14:47:45 2017 ---->current fitness: 70 iteration: 4000000, Tue Sep 12 14:47:49 2017 ---->current fitness: 70 iteration: 5000000, Tue Sep 12 14:47:53 2017 ---->current fitness: 70 iteration: 6000000, Tue Sep 12 14:47:56 2017 ----->current fitness: 70 iteration: 7000000, Tue Sep 12 14:48:00 2017 ---->current fitness: 70 iteration: 8000000, Tue Sep 12 14:48:03 2017 ---->current fitness: 70 iteration: 9000000, Tue Sep 12 14:48:07 2017 ----->current fitness: 70 iteration: 10000000, Tue Sep 12 14:48:11 2017 ---->current fitness: 70 iteration: 11000000, Tue Sep 12 14:48:14 2017 ---->current fitness: 70 iteration: 12000000, Tue Sep 12 14:48:18 2017 ----->current fitness: 70

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