

```
1  #include <stdio.h>
2  #include "../src/cgp.h"
3
4  int main(void){
5
6      struct parameters *params = NULL;
7      struct dataSet *trainingData = NULL;
8      struct chromosome *chromo = NULL;
9
10     int numInputs = 1;
11     int numNodes = 15;
12     int numOutputs = 1;
13     int nodeAriety = 2;
14
15     int numGens = 10000;
16     double targetFitness = 0.1;
17     int updateFrequency = 500;
18
19     params = initialiseParameters(numInputs, numNodes, numOutputs, nodeAriety);
20
21     addNodeFunction(params, "add,sub,mul,div,sin");
22
23     setTargetFitness(params, targetFitness);
24
25     setUpdateFrequency(params, updateFrequency);
26
27     printParameters(params);
28
29     trainingData = initialiseDataSetFromFile("../dataSets/symbolic.data");
30
31     chromo = runCGP(params, trainingData, numGens);
32
33     printChromosome(chromo, 0);
34
35     freeDataSet(trainingData);
36     freeChromosome(chromo);
37     freeParameters(params);
38
39     return 0;
40 }
```