

Neural network

Settings:

crossover method: one point method;

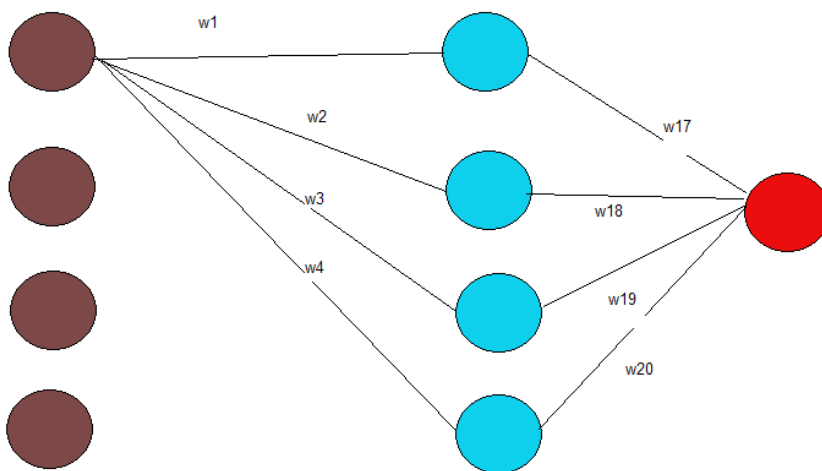
amount of genes: 20;

amount of chromosomes: 20;

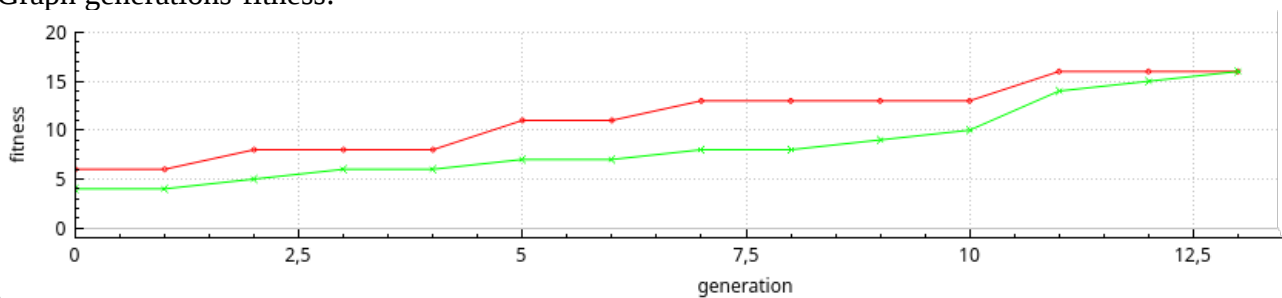
amount of iterations: 13;

without mutation;

neural network 4-4-1:



Graph generations-fitness:



First (1st) generation:

weight	value
w1	-0.577
w2	-0.108
w3	0.949
w4	0.765
w5	-0.871
w6	-0.391
w7	-0.591
w8	0.752
w9	0.02
w10	-0.389
w11	0.131
w12	0.534
w13	0.432
w14	0.033
w15	0.942
w16	0.757
w17	0.586
w18	0.196
w19	0.674
w20	-0.954

Best chromosome						
input				etalon		output
0	0	0	0	1		0
0	0	0	1	0		0
0	0	1	0	0		1
0	0	1	1	1		0
0	1	0	0	0		0
0	1	0	1	1		0
0	1	1	0	1		1
0	1	1	1	0		1
1	0	0	0	0		1
1	0	0	1	1		0
1	0	1	0	1		1
1	0	1	1	0		0
1	1	0	0	1		1
1	1	0	1	0		0
1	1	1	0	0		1
1	1	1	1	1		0
<i>Fitness is 6</i>						

Middle (7th) generation:

weight	value
w1	0.632
w2	0.172
w3	0.426
w4	-0.46
w5	0.926
w6	0.763
w7	-0.591
w8	-0.31
w9	-0.973
w10	-0.638
w11	0.421
w12	0.534
w13	0.432
w14	0.033
w15	0.942
w16	0.757
w17	0.586
w18	0.196
w19	0.674
w20	-0.954

Best chromosome						
input				etalon	output	
0	0	0	0	1	1	
0	0	0	1	0	0	
0	0	1	0	0	0	
0	0	1	1	1	0	
0	1	0	0	0	0	
0	1	0	1	1	0	
0	1	1	0	1	1	
0	1	1	1	0	0	
1	0	0	0	0	0	
1	0	0	1	1	1	
1	0	1	0	1	1	
1	0	1	1	0	0	
1	1	0	0	1	1	
1	1	0	1	0	0	
1	1	1	0	0	0	
1	1	1	1	1	1	
<i>Fitness is 13</i>						

Last (13th) generation:

weight	value
w1	0.632
w2	0.892
w3	0.448
w4	0.016
w5	0.865
w6	0.42
w7	0.593
w8	-0.31
w9	-0.973
w10	-0.638
w11	0.421
w12	0.534
w13	0.432
w14	0.033
w15	0.942
w16	0.757
w17	0.586
w18	0.196
w19	0.695
w20	0.927

Best chromosome						
input				etalon	output	
0	0	0	0	1	1	
0	0	0	1	0	0	
0	0	1	0	0	0	
0	0	1	1	1	1	
0	1	0	0	0	0	
0	1	0	1	1	1	
0	1	1	0	1	1	
0	1	1	1	0	0	
1	0	0	0	0	0	
1	0	0	1	1	1	
1	0	1	0	1	1	
1	0	1	1	0	0	
1	1	0	0	1	1	
1	1	0	1	0	0	
1	1	1	0	0	0	
1	1	1	1	1	1	
<i>Fitness is 16</i>						