Part3 Results

Perceptron
perceptron with n = 100
0.8016
perceptron with n = 500
0.6478
perceptron with n = 1000
0.6754
bestresult: correct1 = 0.8016 m = 100

Perceptron with margin
perceptron_margin with m = 100, r = 1.5
0.8016
perceptron_margin with m = 100, r = 0.25
0.7958
perceptron_margin with m = 100, r = 0.03
0.8224
perceptron_margin with m = 100, r = 0.005
0.7634
perceptron_margin with m = 100, r = 0.001
0.6798
bestresult for m = 100 : correct1 = 0.8224 learning rate = 0.03
perceptron_margin with m = 500, r = 1.5
0.6478
perceptron_margin with m = 500, r = 0.25
0.6574
perceptron_margin with m = 500, r = 0.03
0.6454
perceptron_margin with m = 500, r = 0.005
0.628
perceptron_margin with m = 500, r = 0.001
0.5588
bestresult for m = 500 : correct1 = 0.6574 learning rate = 0.25
perceptron_margin with m = 1000, r = 1.5
0.6754
perceptron_margin with m = 1000, r = 0.25
0.7168
perceptron_margin with m = 1000, r = 0.03
0.7228
perceptron_margin with m = 1000, r = 0.005

0.6272
perceptron_margin with m = 1000, r = 0.001
0.56
bestresult for m = 1000 : correct1 = 0.7228 learning rate = 0.03

Winnow:
winnow with m = 100, alpha = 1.1
0.7784
winnow with m = 100, alpha = 1.01
0.819
winnow with m = 100, alpha = 1.005
0.7466
winnow with m = 100, alpha = 1.0005
0.5982
winnow with m = 100, alpha = 1.0001
0.5832
bestresult m = 100: correct1 = 0.819 alpha = 1.01
winnow with m = 500, alpha = 1.1
0.7978
winnow with m = 500, alpha = 1.01
0.545
winnow with m = 500, alpha = 1.005
0.5294
winnow with m = 500, alpha = 1.0005
0.5248
winnow with m = 500, alpha = 1.0001
0.5188
bestresult m = 500: correct1 = 0.7978 alpha = 1.1
winnow with m = 1000, alpha = 1.1
0.7406
winnow with m = 1000, alpha = 1.01
0.654
winnow with m = 1000, alpha = 1.005
0.4932
winnow with m = 1000, alpha = 1.0005
0.4932
winnow with m = 1000, alpha = 1.0001
0.4932
bestresult m = 1000: correct1 = 0.7406 alpha = 1.1

Winnow with margin:
winnow_margin with m = 100, alpha = 1.1 gamma = 2.0
0.8916

winnow_margin with m = 100, alpha = 1.1 gamma = 0.3
0.8808
winnow_margin with m = 100, alpha = 1.1 gamma = 0.04
0.8756
winnow_margin with m = 100, alpha = 1.1 gamma = 0.006
0.8414
winnow_margin with m = 100, alpha = 1.1 gamma = 0.001
0.8908
winnow_margin with m = 100, alpha = 1.01 gamma = 2.0
0.9002
winnow_margin with m = 100, alpha = 1.01 gamma = 0.3
0.8334
winnow_margin with m = 100, alpha = 1.01 gamma = 0.04
0.8208
winnow_margin with m = 100, alpha = 1.01 gamma = 0.006
0.8188
winnow_margin with m = 100, alpha = 1.01 gamma = 0.001
0.8184
winnow_margin with m = 100, alpha = 1.005 gamma = 2.0
0.8648
winnow_margin with m = 100, alpha = 1.005 gamma = 0.3
0.7606
winnow_margin with m = 100, alpha = 1.005 gamma = 0.04
0.7486
winnow_margin with m = 100, alpha = 1.005 gamma = 0.006
0.7462
winnow_margin with m = 100, alpha = 1.005 gamma = 0.001
0.7464
winnow_margin with m = 100, alpha = 1.0005 gamma = 2.0
0.609
winnow_margin with m = 100, alpha = 1.0005 gamma = 0.3
0.6
winnow_margin with m = 100, alpha = 1.0005 gamma = 0.04
0.5984
winnow_margin with m = 100, alpha = 1.0005 gamma = 0.006
0.5982
winnow_margin with m = 100, alpha = 1.0005 gamma = 0.001
0.5984
winnow_margin with m = 100, alpha = 1.0001 gamma = 2.0
0.5854
winnow_margin with m = 100, alpha = 1.0001 gamma = 0.3
0.5822
winnow_margin with m = 100, alpha = 1.0001 gamma = 0.04
0.5828

winnow_margin with m = 100, alpha = 1.0001 gamma = 0.006
0.583
winnow_margin with m = 100, alpha = 1.0001 gamma = 0.001
0.583
bestresult for m = 100: correct1 = 0.9002 alpha = 1.01 gamma = 2.0
winnow_margin with m = 500, alpha = 1.1 gamma = 2.0
0.7996
winnow_margin with m = 500, alpha = 1.1 gamma = 0.3
0.7912
winnow_margin with m = 500, alpha = 1.1 gamma = 0.04
0.7986
winnow_margin with m = 500, alpha = 1.1 gamma = 0.006
0.803
winnow_margin with m = 500, alpha = 1.1 gamma = 0.001
0.7938
winnow_margin with m = 500, alpha = 1.01 gamma = 2.0
0.551
winnow_margin with m = 500, alpha = 1.01 gamma = 0.3
0.5492
winnow_margin with m = 500, alpha = 1.01 gamma = 0.04
0.5478
winnow_margin with m = 500, alpha = 1.01 gamma = 0.006
0.5448
winnow_margin with m = 500, alpha = 1.01 gamma = 0.001
0.5464
winnow_margin with m = 500, alpha = 1.005 gamma = 2.0
0.5308
winnow_margin with m = 500, alpha = 1.005 gamma = 0.3
0.5292
winnow_margin with m = 500, alpha = 1.005 gamma = 0.04
0.5294
winnow_margin with m = 500, alpha = 1.005 gamma = 0.006
0.529
winnow_margin with m = 500, alpha = 1.005 gamma = 0.001
0.5304
winnow_margin with m = 500, alpha = 1.0005 gamma = 2.0
0.5202
winnow_margin with m = 500, alpha = 1.0005 gamma = 0.3
0.525
winnow_margin with m = 500, alpha = 1.0005 gamma = 0.04
0.5244
winnow_margin with m = 500, alpha = 1.0005 gamma = 0.006
0.525
winnow_margin with m = 500, alpha = 1.0005 gamma = 0.001

0.5246
winnow_margin with m = 500, alpha = 1.0001 gamma = 2.0
0.5182
winnow_margin with m = 500, alpha = 1.0001 gamma = 0.3
0.5186
winnow_margin with m = 500, alpha = 1.0001 gamma = 0.04
0.5186
winnow_margin with m = 500, alpha = 1.0001 gamma = 0.006
0.5188
winnow_margin with m = 500, alpha = 1.0001 gamma = 0.001
0.5188
bestresult for m = 500: correct1 = 0.803 alpha = 1.1 gamma = 0.006
winnow_margin with m = 1000, alpha = 1.1 gamma = 2.0
0.738
winnow_margin with m = 1000, alpha = 1.1 gamma = 0.3
0.7398
winnow_margin with m = 1000, alpha = 1.1 gamma = 0.04
0.7394
winnow_margin with m = 1000, alpha = 1.1 gamma = 0.006
0.739
winnow_margin with m = 1000, alpha = 1.1 gamma = 0.001
0.7406
winnow_margin with m = 1000, alpha = 1.01 gamma = 2.0
0.6542
winnow_margin with m = 1000, alpha = 1.01 gamma = 0.3
0.6548
winnow_margin with m = 1000, alpha = 1.01 gamma = 0.04
0.6544
winnow_margin with m = 1000, alpha = 1.01 gamma = 0.006
0.654
winnow_margin with m = 1000, alpha = 1.01 gamma = 0.001
0.654
winnow_margin with m = 1000, alpha = 1.005 gamma = 2.0
0.4932
winnow_margin with m = 1000, alpha = 1.005 gamma = 0.3
0.4932
winnow_margin with m = 1000, alpha = 1.005 gamma = 0.04
0.4932
winnow_margin with m = 1000, alpha = 1.005 gamma = 0.006
0.4932
winnow_margin with m = 1000, alpha = 1.005 gamma = 0.001
0.4932
winnow_margin with m = 1000, alpha = 1.0005 gamma = 2.0
0.4932

winnow_margin with m = 1000, alpha = 1.0005 gamma = 0.3
0.4932
winnow_margin with m = 1000, alpha = 1.0005 gamma = 0.04
0.4932
winnow_margin with m = 1000, alpha = 1.0005 gamma = 0.006
0.4932
winnow_margin with m = 1000, alpha = 1.0005 gamma = 0.001
0.4932
winnow_margin with m = 1000, alpha = 1.0001 gamma = 2.0
0.4932
winnow_margin with m = 1000, alpha = 1.0001 gamma = 0.3
0.4932
winnow_margin with m = 1000, alpha = 1.0001 gamma = 0.04
0.4932
winnow_margin with m = 1000, alpha = 1.0001 gamma = 0.006
0.4932
winnow_margin with m = 1000, alpha = 1.0001 gamma = 0.001
0.4932
bestresult for m = 1000: correct1 = 0.7406 alpha = 1.1 gamma = 0.001

Adagrad
adagrad with m = 100, r = 1.5
0.8482
adagrad with m = 100, r = 0.25
0.8884
adagrad with m = 100, r = 0.03
0.666
adagrad with m = 100, r = 0.005
0.565
adagrad with m = 100, r = 0.001
0.5024
bestresult for m = 100: correct1 = 0.8884 learning rate = 0.25
adagrad with m = 500, r = 1.5
0.7664
adagrad with m = 500, r = 0.25
0.7568
adagrad with m = 500, r = 0.03
0.5936
adagrad with m = 500, r = 0.005
0.544
adagrad with m = 500, r = 0.001
0.5014
bestresult for m = 500: correct1 = 0.7664 learning rate = 1.5

adagrad with m = 1000, r = 1.5
0.7394
adagrad with m = 1000, r = 0.25
0.6508
adagrad with m = 1000, r = 0.03
0.5472
adagrad with m = 1000, r = 0.005
0.5066
adagrad with m = 1000, r = 0.001
0.5066
bestresult for m = 1000: correct1 = 0.7394 learning rate = 1.5

TESTs

Perceptron:
TEST perceptron with m = 100
0.966
TEST perceptron with m = 500
0.9175
TEST perceptron with m = 1000
0.7278

Perceptron with margin:
TEST perceptron_margin with m = 100, learning rate = 0.005
0.9935
TEST perceptron_margin with m = 500, learning rate = 0.03
0.9488
TEST perceptron_margin with m = 1000, learning rate = 0.25
0.7843

Winnow
TESTwinnow with m = 100, alpha = 1.01
0.9667
TESTwinnow with m = 500, alpha = 1.1
0.911
TESTwinnow with m = 1000, alpha = 1.1
0.7695

Winnow with margin:
TEST winnow_margin with m = 100, alpha = 1.01 gamma = 2.0
0.998
TEST winnow_margin with m = 500, alpha = 1.1 gamma = 0.006
0.9088

TEST winnow_margin with m = 1000, alpha = 1.1 gamma = 0.001
0.7579

Adagrad:
TEST adagrad with m = 100, r = 0.25
0.9996
TEST adagrad with m = 100, r = 1.5
0.937
TEST adagrad with m = 100, r = 1.5
0.7767