

Ps7 report  
Jared Kinneer

1b: accuracy = .98

2b:

the cost for lambda ( 0 ) is 0.20252633908551299

the cost for lambda ( 1 ) is 0.9111150341988488

the cost for lambda ( 2 ) is 1.6197037293121845

3: [4.53958077e-05, 2.50000000e-01, 4.53958077e-05]

4d: I used alpha = .01

5:

Accuracy with alpha = .1

Lambda	MaxEpochs = 50		MaxEpochs = 100	
	Training	Testing	Training	Testing
0	74.19	53.8	92.857	91.666
.01	32.57	38.88	32.59	34.379
.1	34.14	29.62	34.375	27.27
1	30.95	45.83	29.82	44.44

cost for results above

Lambda	MaxEpochs = 50		MaxEpochs = 100	
	Training	Testing	Training	Testing
0	1.26	1.98	.519	.49
.01	3.4	2.7	3.5	5.49
.1	5.4	5.9	5.49	6.349
1	5.64	8.77	5.88	7.847

For both MaxEpochs =50 and =100, the best accuracy came with lambda = 0

And the only time the testing really outperformed the training was with lambda = 1