

# CS 5001 Deep Learning - Fall 2017

## Homework 2

Dalton Cole

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With initial weights  $w_0 = -8$ ,  $w_1 = 23$ ,  $w_2 = 5$ ,  $w_3 = -37$ , and  $w_4 = -17$  and employing incremental gradient descent logistic regression yields the results shown in Table 1.

Table 1: Logistic Regression Results

Learning rate	.001
Number of Iterations	5000
Sum of Squares Error	1.1324121303451942
Initial Weights	
$w_0$	-8
$w_1$	23
$w_2$	5
$w_3$	-37
$w_4$	-17
Final Weights	
$w_0$	-6.561775
$w_1$	23.614644
$w_2$	5.829619
$w_3$	-37.000000
$w_4$	-16.385356