Batch Gradient optimization. 18K41A04D2 X X
0.2 3.4 (Assignment -7) Pate Page
Step1: m=1, c=1, n=0.1, epochs=2
8tep 2: Itel = 0 8tep 3: $E = \frac{1}{2n_s} \sum_{i=1}^{\infty} (y_i - mx_i - c)^2$
2E - 1 3 (Y,-mx;-c)(-x;) = (-127866664)
36 = 1 2 (4: -mx, -c)4.4
8 tep 4: DM = -1 (2c) (-1.7866565) =0.17866
DC = - M(dE) = - (0.1) (-4.4) = 0.44.
Step 5: m= m+Am = 1+0,17866= 1.17866
C = C + A C = -1 + 0.17866 = -0.56
Step 6: 9ty=itx+1=1
step 7 "if (itcl >e pochs)
1 7 2
goto step 3.
8tep 31 de 1 2 (Yi-mxi-c)(-xi)= -1.57731586
de = 1 2(Yi-mxi-c) = -3.888853333
Step 4: Dm 1(26) = -(0.1)(-1.5773156) = 0.15773156
$\Delta C = -\eta(\frac{\partial E}{\partial C}) = -(0.1)(-3.8888) = 0.38888$

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Step 5: m= m+ D m = 1. 7866+ 0.1577 = 1-336398 = C= C+AC= -0,56+ 6.8888 = -0-1711 ites=ites+1 = 2 3tep 6: Step 7: if (ites zepochs) 2 2 2 goto step 8 m, c = 1,336398, -0,5711. Step 8: Bt MSE = 11.82167593. 4-4-12-10-11 WEERC (1866666) (105 (16) N- - D) A in high 20-0 (p.d-)0.00 (36) N - 34 302 E) . 1 = 300 F1. D+1 = land+10 = cor 20- C+ ACE -1* 0.13666 - -0.55 fect = items = 1 of gods 371 \$ 93.00 state