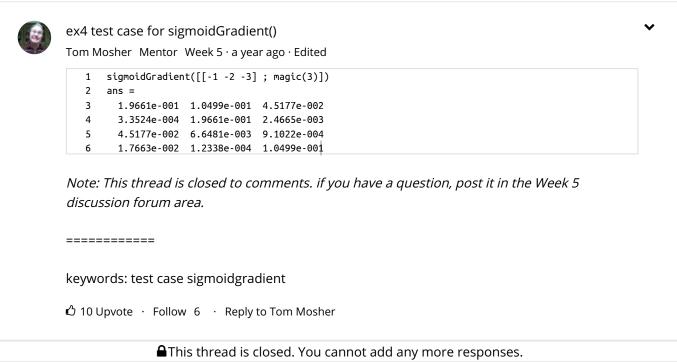


Discussion Forums / Week 5

Week 5

Discuss this week's module: Neural Networks: Learning.

← Week 5



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rydenisbak · 10 months ago

Hello, I have trable.

qwe = [[-1 -2 -3]; magic(3)];

>> qwe .* (1 - qwe)

ans =

-2 -6 -12

-56 0 -30
```

-6 -20 -42

-12 -72 -2

🖒 0 Upvote · Hide 7 Replies



Tom Mosher Mentor · 10 months ago

The probem is that you didn't include the sigmoid - so the short form of the sigmoid gradient doesn't work.

If g = sigmoid(z),

then g' = g .* (1-g)

You forgot to compute g.

🖒 0 Upvote

rydenisbak · 10 months ago

Exactly! Thank you.

🖒 0 Upvote

shreya gupta · 6 months ago

sir i am facing the same problem and even after including the equation (given in sigmoid.m) to compute g, i am getting the same result. Please help.

🖒 0 Upvote



Tom Mosher Mentor \cdot 6 months ago

Sorry, what "same result" do you mean? Need more details.

🖒 0 Upvote

shreya gupta · 6 months ago

my results for:

qwe = [[-1 -2 -3]; magic(3)];

>> qwe .* (1 - qwe)

ans =

-2 -6 -12

-56 0 -30

-6 -20 -42

-12 -72 -2

🖒 0 Upvote

shreya gupta · 6 months ago

i am facing this problem even after including the equation to compute g apart from equationg g to sigmoid(z) and finding gradient of g as you've mentioned in the comments above

🖒 0 Upvote



SG

Tom Mosher Mentor · 6 months ago

Start from here:

...then you arrive here:

```
1 >> u.*(1-u)
2 % result
3 ans =
4    1.9661e-001   1.0499e-001   4.5177e-002
5    3.3524e-004   1.9661e-001   2.4665e-003
6    4.5177e-002   6.6481e-003   9.1022e-004
7    1.7663e-002   1.2338e-004   1.0499e-001
8
```

🖒 0 Upvote



satyamverma · 7 months ago

How to decide where to use .* or * in multiplying two matrices?

🖒 0 Upvote · Hide 2 Replies



Tom Mosher Mentor · 7 months ago

If the result has the same size as both operands, and you don't want to automatically calculate the sum of the products, use element-wise multiplication.

🖒 2 Upvote



satyamverma \cdot 7 months ago

Thanks..

🖒 0 Upvote



Joe Ellis · 2 months ago

My results are right (I think) but I'm not getting the exponent notation:

```
>> sigmoidGradient([[-1 -2 -3]; magic(3)])
2
3
  ans =
4
5
      0.1966
              0.1050
                        0.0452
              0.1966
6
      0.0003
                        0.0025
              0.0066
7
      0.0452
                        0.0009
      0.0177
               0.0001
                         0.1050
```

Did you intentionally setup MATLAB to give results using exponents (and, if so, may I ask why)?

🖒 0 Upvote · Hide 1 Reply



Tom Mosher Mentor · 2 months ago

The appearance of the values on your screen is based on MATLAB or Octave's whim. The screen display appearance has no impact on the double-precision values stored internal the program - just how they are shown on your screen.

You can change the display format using the "format" command. Use "help format" to learn what options are available.

🖒 0 Upvote

