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Practice quiz: Neural network implementation in Python

Graded Quiz • 10 min

Due Jan 29, 11:59 PM EET

Item Navigation

Congratulations! You passed!

Grade received 100%

Practice quiz: Neural network implementation in Python

To pass 80% or higher

Quiz • 10 min

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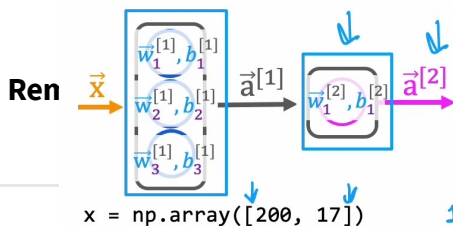
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Due Jan 29, 11:59 PM EET

1.

forward prop (coffee roasting model)

1 / 1 point



$$a_1^{[2]} = g(\vec{w}_1^{[2]} \cdot \vec{a}^{[1]} + b_1^{[2]})$$

$\rightarrow w2_1 = \text{np.array}([-7, 8, 9])$
 $\rightarrow b2_1 = \text{np.array}([3])$
 $\rightarrow z2_1 = \text{np.dot}(w2_1, a1) + b2_1$
 $\rightarrow a2_1 = \text{sigmoid}(z2_1)$

$$w_1^{[2]} \quad w2_1$$

1D arrays



Re

$$a_1^{[1]} = g(\vec{w}_1^{[1]} \cdot \vec{x} + b_1^{[1]})$$

$$a_2^{[1]} = g(\vec{w}_2^{[1]} \cdot \vec{x} + b_2^{[1]})$$

$$a_3^{[1]} = g(\vec{w}_3^{[1]} \cdot \vec{x} + b_3^{[1]})$$

To Pass

$$w1_1 = \text{np.array}([1, 2])$$

$$w1_2 = \text{np.array}([-3, 4])$$

$$w1_3 = \text{np.array}([5, -6])$$

$$b1_1 = \text{np.array}([-1])$$

$$b1_2 = \text{np.array}([1])$$

$$b1_3 = \text{np.array}([2])$$

$$z1_1 = \text{np.dot}(w1_1, x) + b1_1$$

$$z1_2 = \text{np.dot}(w1_2, x) + b1_2$$

$$z1_3 = ?$$

$$a1_1 = \text{sigmoid}(z1_1)$$

$$a1_2 = \text{sigmoid}(z1_2)$$

$$a1_3 = ?$$

Your g

$$a1 = \text{np.array}([a1_1, a1_2, a1_3])$$

100%

According to the lecture, how do you calculate the activation of the third neuron in the first layer using NumPy?

View Feedback

We keep your highest score

$$z1_3 = w1_3$$

$$a1_3 = \text{sigmoid}(w1_3)$$



Like



Dislike

Report an issue

You're ahead of the game!

Continue this problem set, and you'll finish

4 days earlier than expected.

$$a1_3 = \text{sigmoid}(z1_3)$$

