CS50AI 2020 - Quiz 5 Submission

Total points 3/4

A score of 70% or higher is required to be considered to have "passed" a quiz.

Unlike CS50x, assignments and quizzes in this course are graded on a set schedule, and depending on when you submitted, it may take up to three weeks for your work to be graded. Do be patient! Quizzes (which are submitted via Google Forms and not submit50) will not show up as submitted in your Gradebook until the scores have been released; therefore, we ask that you please do not attempt to submit multiple times before your score is released.

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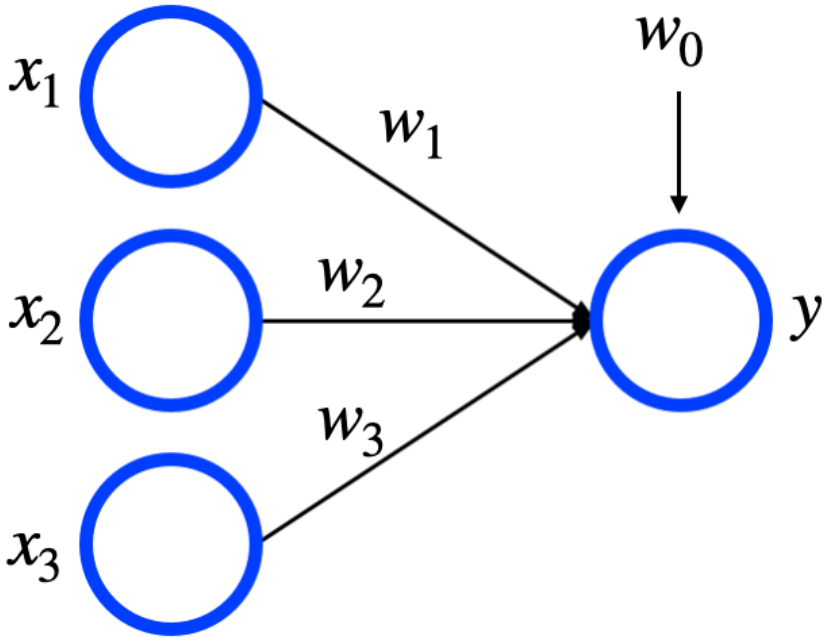
The following question will ask you about the below neural network, where we set w0 = -5, w1 = 2, w2 = -1, and w3 = 3. x1, x2, and x3 represent input neurons, and y represents the output neuron.



✗ What value will this network compute for y given inputs x1 = 3, x2 = 2, and x3 = 4 if we use a step activation function? What if we use a ReLU activation function? * 0/1

- ○ 0 for step activation function, 0 for ReLU activation function
- ○ 0 for step activation function, 1 for ReLU activation function
- ○ 1 for step activation function, 0 for ReLU activation function
- ○ 1 for step activation function, 1 for ReLU activation function
- ○ 1 for step activation function, 11 for ReLU activation function
- ○ 1 for step activation function, 16 for ReLU activation function
- ◉ 11 for step activation function, 11 for ReLU activation function ✗
- ○ 16 for step activation function, 16 for ReLU activation function

✓ How many total weights (including biases) will there be for a fully connected neural network with a single input layer with 3 units, a single hidden layer with 5 units, and a single output layer with 4 units? * 1/1

- 9
- 12
- 20
- 35
- 39
- 40
- 44 ✓
- 60
- 69

✓ Consider a recurrent neural network that listens to a audio speech sample, and classifies it according to whose voice it is. What network architecture is the best fit for this problem? * 1/1

- One-to-many (single input, multiple outputs)
- Many-to-one (multiple inputs, single output) ✓
- One-to-one (single input, single output)
- Many-to-many (multiple inputs, multiple outputs)

The following question will ask you about a 4x4 grayscale image with the following pixel values.

2	4	6	8
16	14	12	10
18	20	22	24
32	30	28	26

✓ What would be the result of applying a 2x2 max-pool to the original image? * 1/1

Answers are formatted as a matrix [[a, b], [c, d]] where [a, b] is the first row and [c, d] is the second row.

- (●) [[16, 12], [32, 28]] ✓
- ( ) [[16, 14], [32, 30]]
- ( ) [[22, 24], [32, 30]]
- ( ) [[14, 12], [30, 28]]
- ( ) [[16, 14], [22, 24]]
- ( ) [[16, 12], [32, 30]]

Comments, if any

This form was created inside of CS50.