Introduction to Deep Learning

1.

Question 1

Which of the following are some aspects in which AI has transformed business?

0 / 1 point

Expand

Incorrect

No. Although the impact of AI on business has created more interest in society in general to research new methods to apply AI to every aspect of life.

2.

Question 2

Which of the following play a major role to achieve a very high level of performance with Deep Learning algorithms?

1 / 1 point

Expand

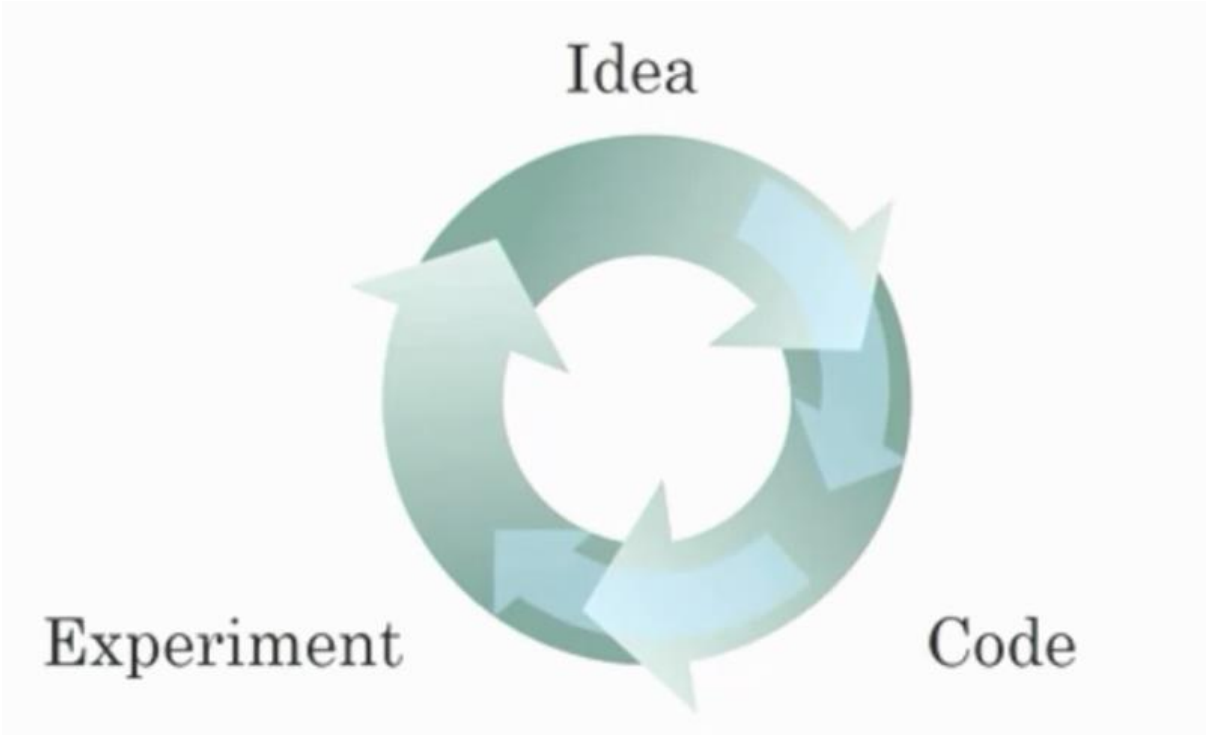
Correct

Great, you got all the right answers.

3.

Question 3

Recall this diagram of iterating over different ML ideas. Which of the statements below are true? (Check all that apply.)



1 / 1 point

Expand

Correct
Great, you got all the right answers.

4.
Question 4
Neural networks are good at figuring out functions relating an input x to an output y given enough examples. True/False?

1 / 1 point
Expand

Correct
Exactly, with neural networks, we don't need to "design" features by ourselves. The neural network figures out the necessary relations given enough data.

5.
Question 5
ReLU stands for which of the following?

1 / 1 point
Expand

Correct
Correct, ReLU stands for Rectified Linear Unit.

6.
Question 6
Images for cat recognition is an example of “structured” data, because it is represented as a structured array in a computer. True/False?

1 / 1 point
Expand

Correct
Yes. Images for cat recognition are examples of “unstructured” data.

7.
Question 7
Which of the following are examples of structured data? Choose all that apply.

1 / 1 point
Expand

Correct
Great, you got all the right answers.

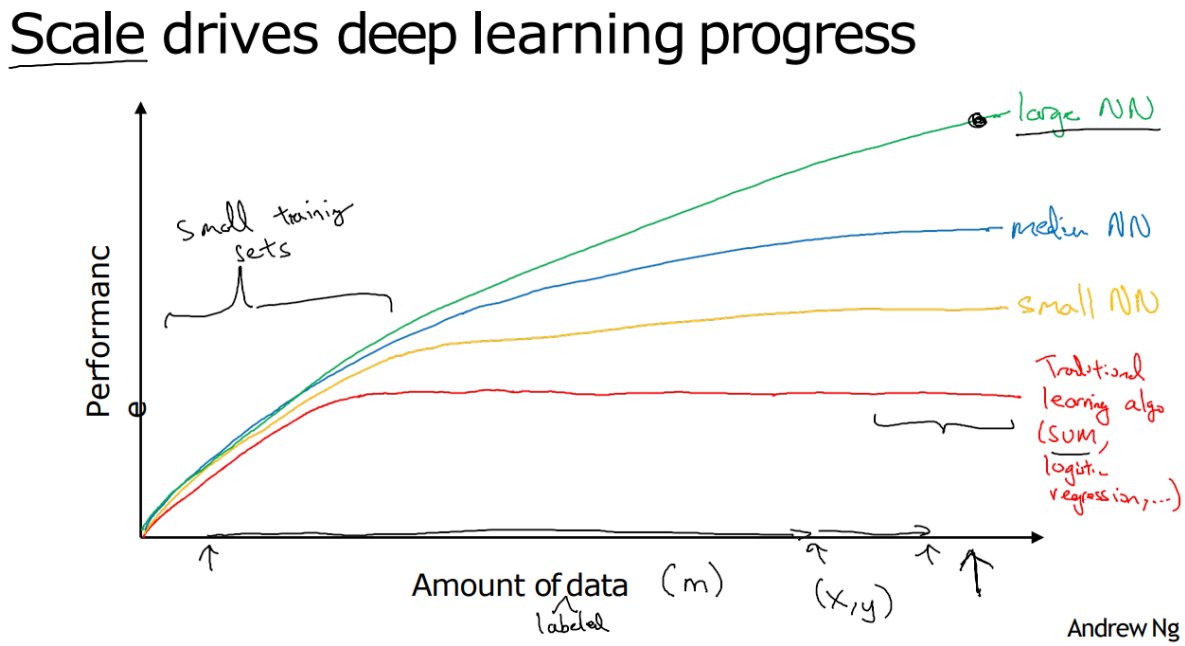
8.
Question 8
RNNs (Recurrent Neural Networks) are good for data with a temporal component. True/False?

1 / 1 point
Expand

Correct
Yes, RNN are designed to work with sequences; the elements of a sequence can be sorted by a temporal component.

9.

Question 9



Suppose the information given in the diagram is accurate. We can deduce that when using large training sets, for a model to keep improving as the amount of data for training grows, the size of the neural network must grow. True/False?

1 / 1 point

Expand

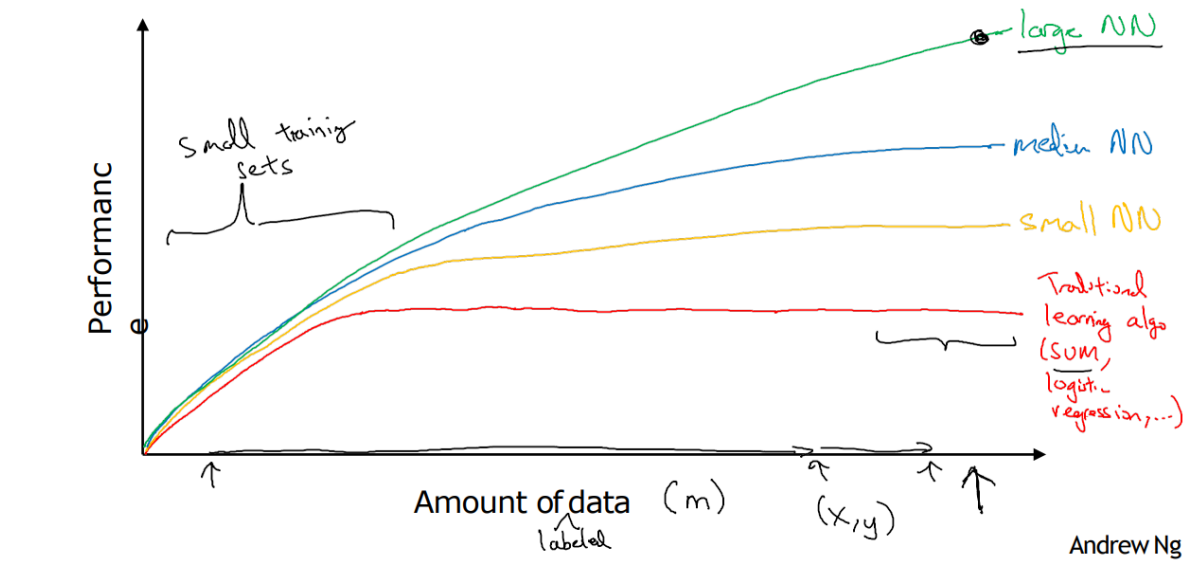
Correct

Yes, the graph shows that after a certain amount of data is fed to a NN it stops increasing its performance. To increase the performance it is necessary to use a larger model.

10.

Question 10

Assuming the trends described in the figure are accurate. The performance of a NN depends only on the size of the NN. True/False?



1 / 1 point

Expand

Correct

Yes. According to the trends in the figure above, It also depends on the amount of data.

•

Question 1

What does the analogy “AI is the new electricity” refer to?

1 / 1 point

Expand

Correct

Yes. AI is transforming many fields from the car industry to agriculture to supply-chain...

2.

Question 2

Which of these are reasons for Deep Learning recently taking off? (Check the three options that apply.)

1 / 1 point

Expand

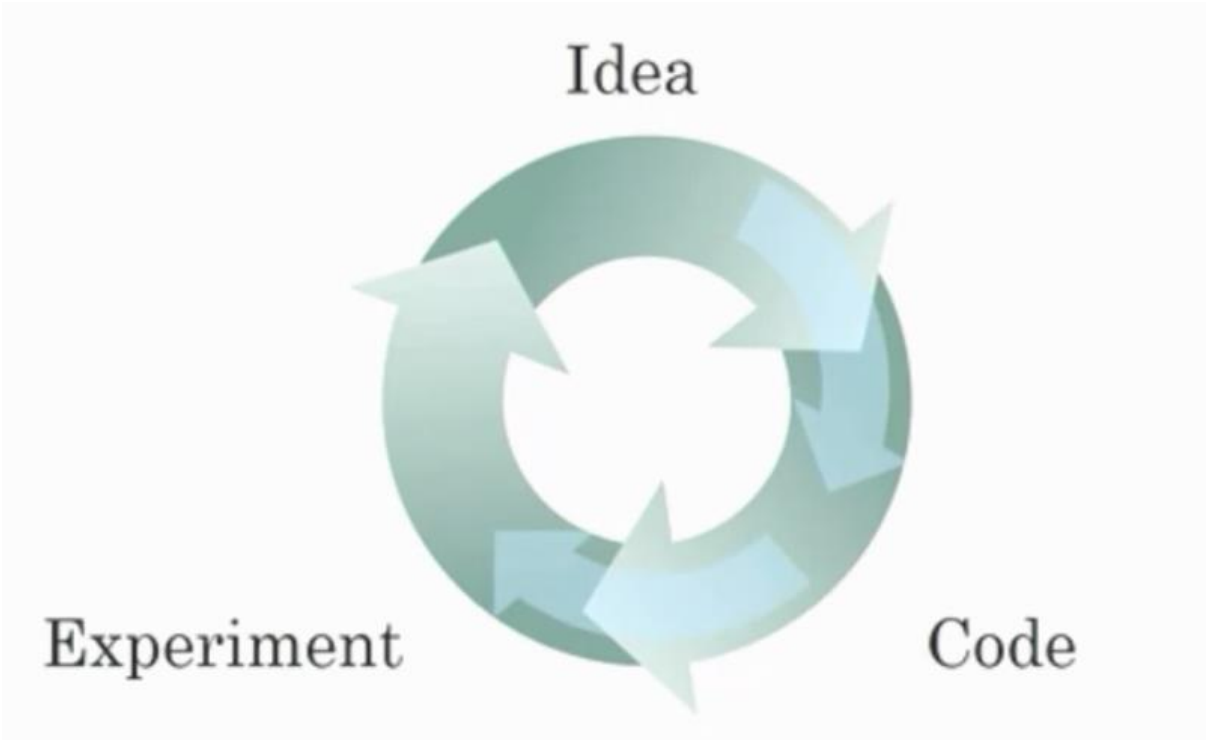
Correct

Great, you got all the right answers.

3.

Question 3

Recall the diagram of iterating over different ML ideas. Which of the stages shown in the diagram was improved with the use of a better GPU/CPU?



0 / 1 point

Expand

Incorrect

You chose the extra incorrect answers.

4.

Question 4

When building a neural network to predict housing price from features like size, the number of bedrooms, zip code, and wealth, it is necessary to come up with other features in between input and output like family size and school quality. True/False?

1 / 1 point

Expand

Correct

A neural network figures out by itself the "features" in between using the samples used to train it.

5.

Question 5

Which of the following depicts a Sigmoid activation function?

1 / 1 point

Expand

Correct

Correct! This is the sigmoid activation function; this function was changed for the ReLU activation function helping with the training of NN.

6.

Question 6

Features of animals, such as weight, height, and color, are used for classification between cats, dogs, or others. This is an example of "structured" data, because they are represented as arrays in a computer. True/False?

1 / 1 point

Expand

Correct

7.

Question 7

Which of the following are examples of structured data? Choose all that apply.

1 / 1 point

Expand

Correct

Great, you got all the right answers.

8.

Question 8

RNNs (Recurrent Neural Networks) are good for data with a temporal component. True/False?

1 / 1 point

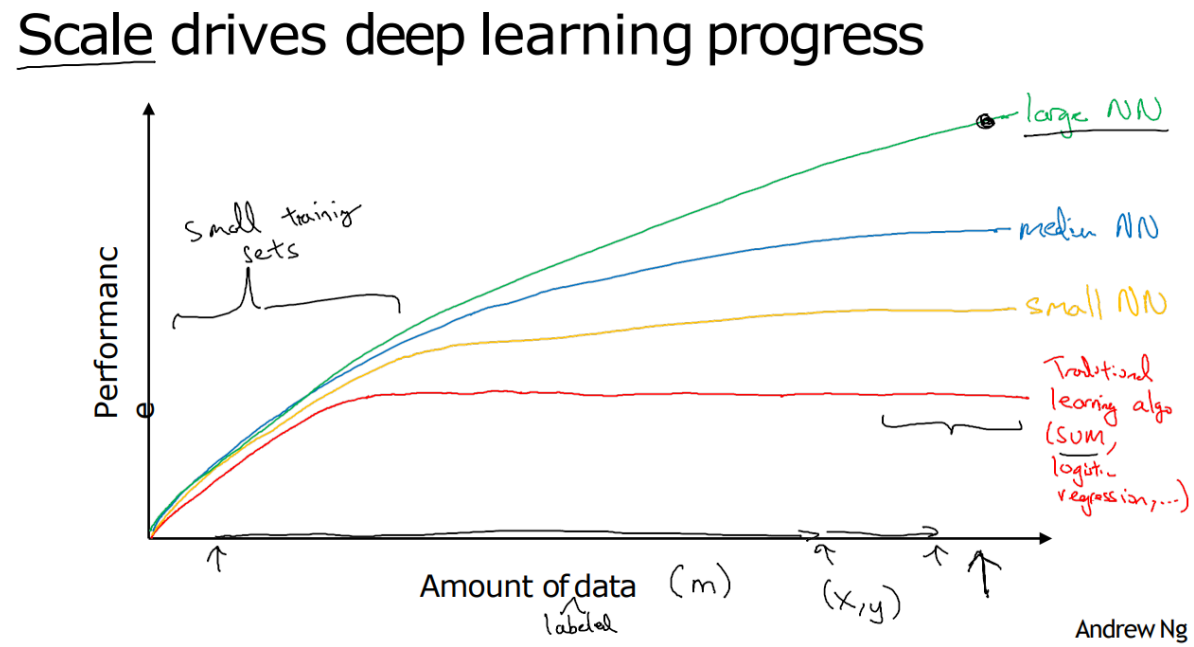
Expand

Correct

Yes, RNN are designed to work with sequences; the elements of a sequence can be sorted by a temporal component.

9.

Question 9



From the given diagram, we can deduce that Large NN models are always better than traditional learning algorithms. True/False?

0 / 1 point

Expand

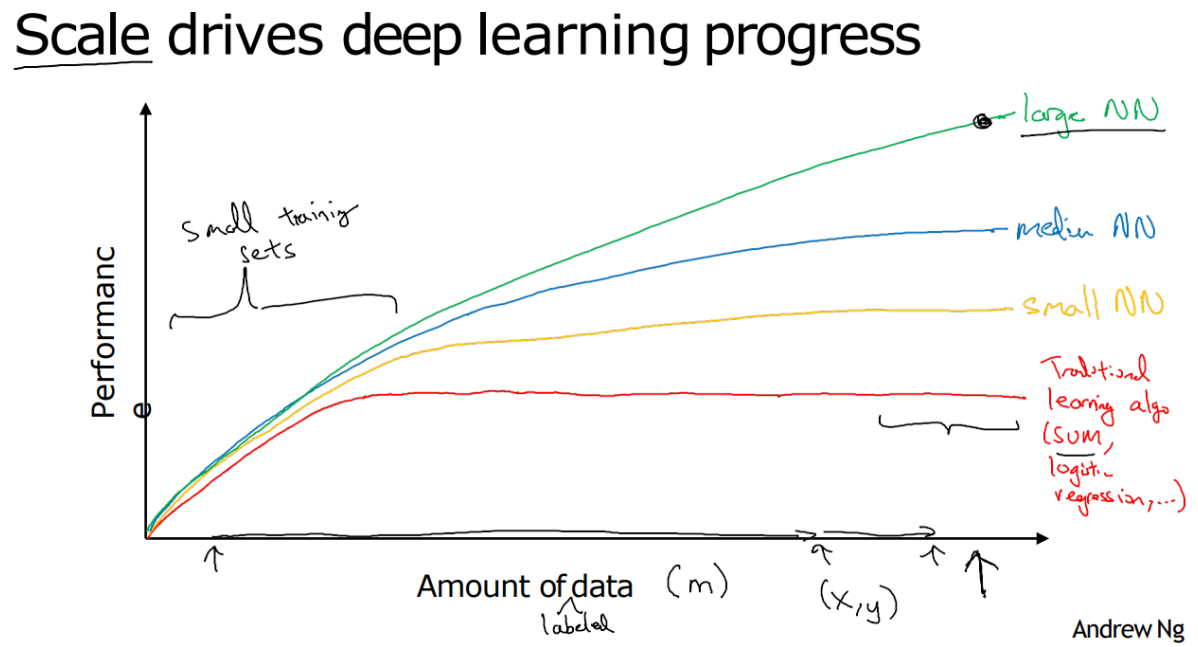
Incorrect

No, when the amount of data is not large the performance of traditional learning algorithms is shown to be the same as NN.

10.

Question 10

Assuming the trends described in the figure are accurate. Which of the following statements are true? Choose all that apply.



1 / 1 point

Expand

Correct

Great, you got all the right answers.