

✔ Congratulations! You passed!

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item

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

1 / 1 point

- ☐ Creating an AI-powered society.
- ☐ AI has not been able to transform businesses.
- ☐ Eliminating the need for health care services.
- ☒ Web searching and advertisement.

↗ Expand

✔ Correct

Yes. AI has helped to make a fit between services or results and consumers or queries.

2. Which of the following are reasons that didn't allow Deep Learning to be developed during the '80s?

1 / 1 point

- ☒ Interesting applications such as image recognition require large amounts of data that were not available.

✔ Correct

Yes. Many resources used today to train Deep Learning projects come from the fact that our society digitizes almost everything, creating a large dataset to train Deep Learning models.

- ☐ The theoretical tools didn't exist during the 80's.

- ☒ Limited computational power.

✔ Correct

Yes. Deep Learning methods need a lot of computational power, and only recently the use of GPUs has accelerated the experimentation with Deep Learning.

- ☐ People were afraid of a machine rebellion.

↗ Expand

✔ Correct

Great, you got all the right answers.

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

1 / 1 point



- ☒ Better algorithms can speed up the iterative process by reducing the necessary computation time.

✓ **Correct**

Yes. Recall how the introduction of the ReLU activation function helped reduce the time needed to train a model.

- ☐ Better algorithms allow engineers to get more data and then produce better Deep Learning models.

- ☒ Improvements in the GPU/CPU hardware enable the discovery of better Deep Learning algorithms.

✓ **Correct**

Yes. By speeding up the iterative process, better hardware allows researchers to discover better algorithms.

- ☐ Larger amounts of data allow researchers to try more ideas and then produce better algorithms in less time.

↗ **Expand**

✓ **Correct**

Great, you got all the right answers.

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

☒ False

☐ True

↗ **Expand**

✓ **Correct**

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

5. ReLU stands for which of the following?

1 / 1 point

☒ Rectified Linear Unit

☐ Representation Linear Unit

☐ Recognition Linear Unit

☐ Rectified Last Unit

↗ **Expand**

✓ **Correct**

Correct, ReLU stands for Rectified Linear Unit.

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

☐ True

☒ False

Expand

✓ Correct

Yes. Images for cat recognition are examples of "unstructured" data.

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

1 / 1 point

☒ A dataset with zip code, income, and name of a person.

✓ Correct

Yes, this data can be presented in a table. This is an example of "structured" data.

☒ A dataset of weight, height, age, the sugar level in the blood, and arterial pressure.

✓ Correct

Yes, this data can be presented in a table. This is an example of "structured" data.

☐ A dataset with short poems.

☐ A set of audio recordings of a person saying a single word.

Expand

✓ Correct

Great, you got all the right answers.

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

1 / 1 point

☒ True

☐ False

Expand

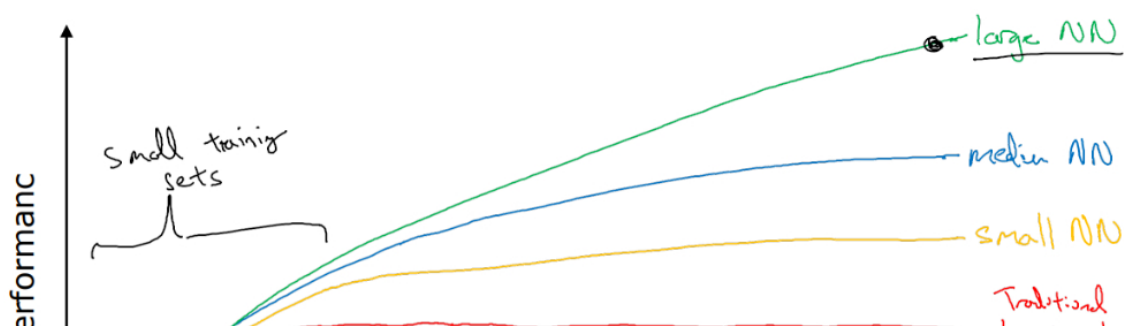
✓ Correct

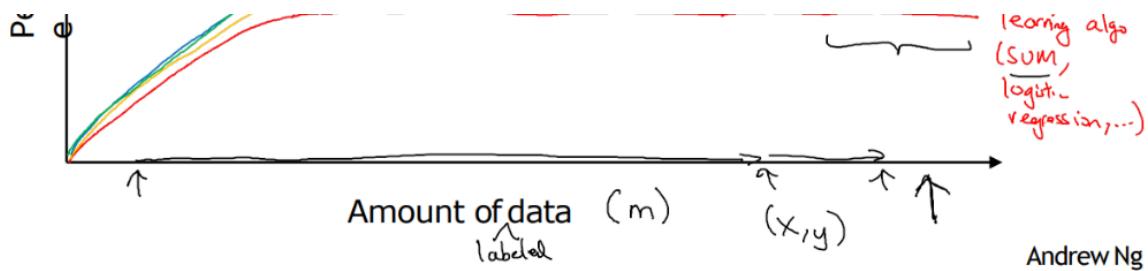
Yes, RNN are designed to work with sequences; the elements of a sequence can be sorted by a temporal component.

9.

1 / 1 point

Scale drives deep learning progress





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

- ☐ True
- ☒ False

[Expand](#)

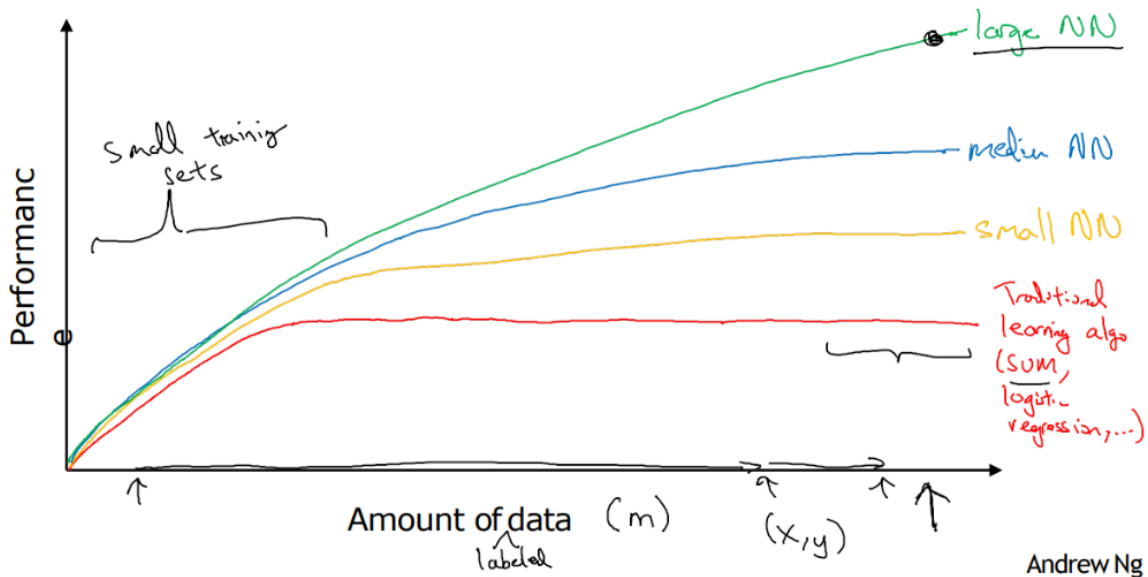
✓ Correct

Yes, when the amount of data is not large the performance of traditional learning algorithms is shown to be the same as NN.

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

1 / 1 point

Scale drives deep learning progress



- ☒ Increasing the training set size of a traditional learning algorithm stops helping to improve the performance after a certain size.

✓ Correct

Yes. After a certain size, traditional learning algorithms don't improve their performance.

- ☐ Increasing the training set size of a traditional learning algorithm always improves its performance.
- ☐ Decreasing the training set size generally does not hurt an algorithm's performance, and it may help significantly.
- ☒ Increasing the size of a neural network generally does not hurt an algorithm's performance, and it may help significantly.

✓ Correct

Yes. According to the trends in the figure above, big networks usually perform better than small networks.

 Expand



Correct

Great, you got all the right answers.