

✓ 축하합니다! 통과하셨습니다!

받은 학점 100% 최신 제출물 학점 100% 통과 점수: 80% 이상

[다음 항목으로 이동](#)

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

1/1점

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

[↗ 더 보기](#)

✓ 맞습니다

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

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

1/1점

- ☒ We have access to a lot more computational power.

✓ Correct

Yes! The development of hardware, perhaps especially GPU computing, has significantly improved deep learning algorithms' performance.

- ☒ Deep learning has resulted in significant improvements in important applications such as online advertising, speech recognition, and image recognition.

✓ Correct

These were all examples discussed in lecture 3.

- ☒ We have access to a lot more data.

✓ Correct

Yes! The digitalization of our society has played a huge role in this.

- ☐ Neural Networks are a brand new field.

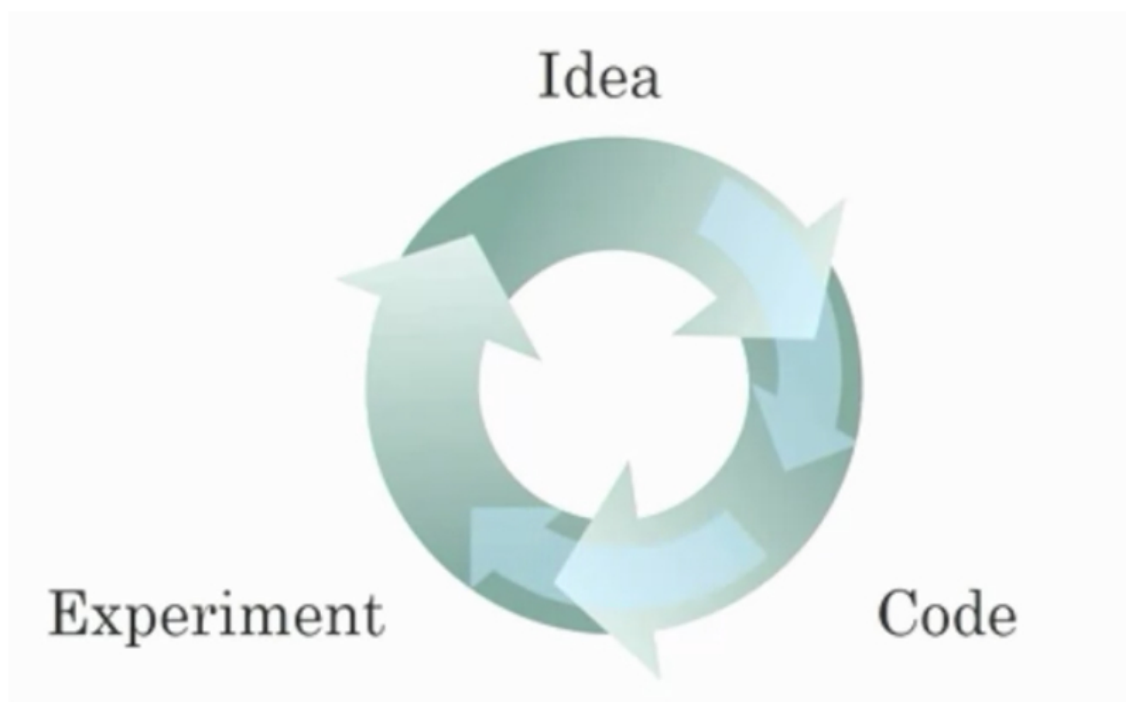
[↗ 더 보기](#)

✓ 맞습니다

Great, you got all the right answers.

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?

1/1점



- ☐ With larger datasets, the iteration process is faster.
- ☒ Experiments finish faster, producing better ideas through increased iteration tempo.

✓ Correct

Yes. The experiments help to test ideas, by getting the feedback from the experiments new variations can be tested and the results might indicate new directions to explore.

- ☒ Some algorithms are specifically designed to run experiments faster.

✓ Correct

Yes. Some algorithms look specifically to improve the time needed to run an experiment and thus enable us to produce better models.

- ☐ Without better hardware, there is no way to train models faster.

↗ 더 보기

✓ 맞습니다

Great, you got all the right answers.

4. When experienced deep learning engineers work on a new problem, they can usually use insight from previous problems to train a good model on the first try, without needing to iterate multiple times through different models. True/False?

1/1점

- ☒ False
- ☐ True

↗ 더 보기

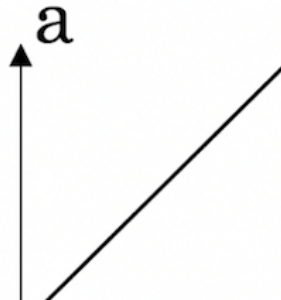
✔ 맞습니다

Yes. Finding the characteristics of a model is key to having good performance. Although experience can help, it requires multiple iterations to build a good model.

5. Which of the following depicts a Sigmoid activation function?

1/1점

☐ Figure 4:



↗ 더 보기

✔ 맞습니다

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

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?

1/1점

☒ True

Yes. The data can be represented by columns of data. This is an example of structured data, unlike images of the animal.

☐ False

No. The data can be represented by columns of data. This is an example of structured data, unlike images of the animal.

↗ 더 보기

✔ 맞습니다

7. A demographic dataset with statistics on different cities' population, GDP per capita, and economic growth is an example of "unstructured" data because it contains data coming from different sources. True/False?

1/1점

☐ True

☒ False

↗ 더 보기

✔ 맞습니다

A demographic dataset with statistics on different cities' population, GDP per capita, and economic growth is an example of "structured" data in contrast to image, audio or text datasets.

8. Why is an RNN (Recurrent Neural Network) used for machine translation, say translating English to French? (Check all that apply.)

1/1점

- ☐ It is strictly more powerful than a Convolutional Neural Network (CNN).
- ☒ It is applicable when the input/output is a sequence (e.g., a sequence of words).

✔ Correct

Yes. An RNN can map from a sequence of english words to a sequence of french words.

- ☒ It can be trained as a supervised learning problem.

✔ Correct

Yes. We can train it on many pairs of sentences x (English) and y (French).

- ☐ RNNs represent the recurrent process of Idea->Code->Experiment->Idea->....

↗ 더 보기

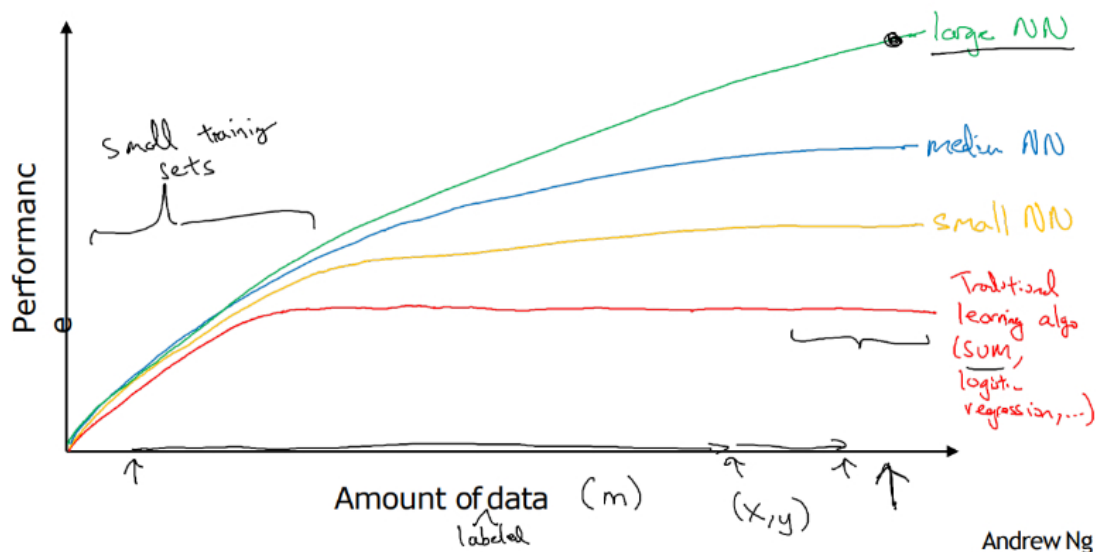
✔ 맞습니다

Great, you got all the right answers.

9.

1/1점

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

[↗ 더 보기](#)

✔ 맞습니다

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 previous question's figure are accurate (and hoping you got the axis labels right), which of the following are true? (Check all that apply.)

1 / 1점

- ☒ 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.

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

✔ Correct

Yes. Bringing more data to a model is almost always beneficial.

- ☐ Decreasing the training set size generally does not hurt an algorithm's performance, and it may help significantly.

[↗ 더 보기](#)

✔ 맞습니다

Great, you got all the right answers.