축하합니다! 통과하셨습니다!

받은 학점 80% 최신 제출물 학점 80% 통과 점수: 80% 이상

다음 항목으로 이동

1. What does the analogy "AI is the new electricity" refer to? 1 / 1점

- AI is powering personal devices in our homes and offices, similar to electricity.
- Through the "smart grid", AI is delivering a new wave of electricity.
- Similar to electricity starting about 100 years ago, AI is transforming multiple industries.
- AI runs on computers and is thus powered by electricity, but it is letting computers do things not possible before.

더 보기

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

2. Which of these are reasons for Deep Learning recently taking off? (Check the three options that apply.) 1 / 1점

- [ ] Neural Networks are a brand new field.
- [x] 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.

- [x] 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.

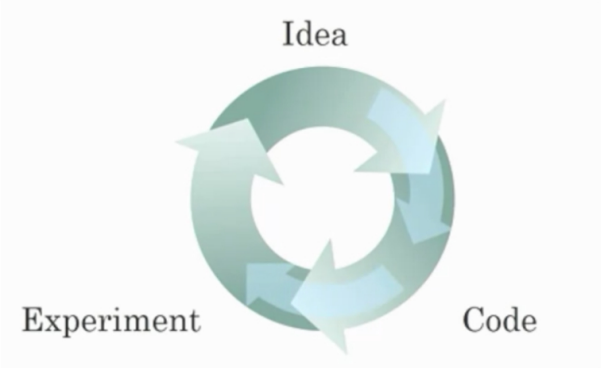
- [x] We have access to a lot more data.

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

더 보기

맞습니다
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 / 1점



- [x] Being able to try out ideas quickly allows deep learning engineers to iterate more quickly.

  Correct
  Yes, as discussed in Lecture 4.

- [ ] It is faster to train on a big dataset than a small dataset.
- [x] Faster computation can help speed up how long a team takes to iterate to a good idea.

  Correct
  Yes, as discussed in Lecture 4.

- [x] Recent progress in deep learning algorithms has allowed us to train good models faster (even without changing the CPU/GPU hardware).

  Correct
  Yes. For example, we discussed how switching from sigmoid to ReLU activation functions

allows faster training.

더 보기

맞습니다
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? 0 / 1점

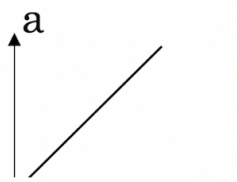
- False
- True

더 보기

틀립니다
Recall that when training a neural network, only the input and output for several examples are given.

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. Images for cat recognition is an example of "structured" data, because it is represented as a structured array in a computer. True/False? 1 / 1점

- False
- True

더 보기

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

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

- False
- True

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 can an RNN (Recurrent Neural Network) be used to create English captions to French movies? Choose all that apply. 1 / 1점

- [x] The RNN is applicable since the input and output of the problem are sequences.

Correct
Yes, an RNN can map from a sequence of sounds (or audio files) to a sequence of words (the caption).

- [ ] RNNs are much more powerful than a Convolutional neural Network (CNN).
- [x] It can be trained as a supervised learning problem.

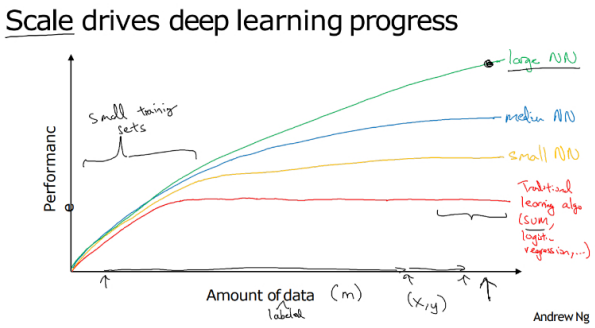
  ✓ **Correct**
  Yes, the data can be used as x (movie audio) to y (caption text).

- [ ] The RNN requires a small number of examples.

↙↗ 더 보기

맞습니다
Great, you got all the right answers.

9. 1 / 1점



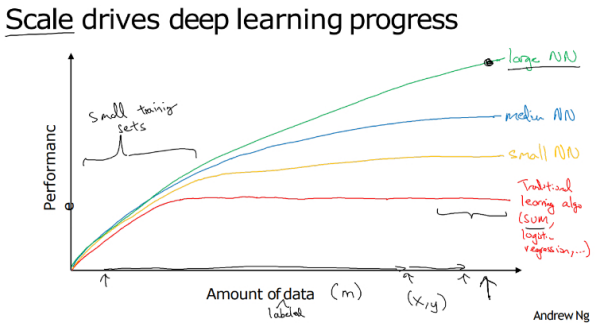
From the given diagram, we can deduce that Large NN models are always better than traditional learning algorithms. True/False?

- ○ 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 figure are accurate. Which of the following statements are true? Choose all that apply. 0 / 1점



- [x] 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.

- [x] Increasing the training set size of a traditional learning algorithm always improves its performance.

  ! **This should not be selected**
  No. After a certain size, traditional learning algorithms don't improve their 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.

↙↗ 더 보기

틀립니다
You didn't select all the correct answers