

Congratulations! You passed!

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Grade received 100% Latest Submission Grade 100% To pass 80% or higher

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

1 / 1 point

- AI has not been able to transform businesses.
- Creating an AI-powered society.
- 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 these are reasons for Deep Learning recently taking off? (Check the three options that apply.)

1 / 1 point

- Neural Networks are a brand new field.
- 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.

- 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.

[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

Idea





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

Correct

Yes, as discussed in Lecture 4.

- 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.

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

Correct

Yes, as discussed in Lecture 4.

Expand

Correct

Great, you got all the right answers.

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

- False
- True

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. ReLU stands for which of the following?

1 / 1 point

- Recognition Linear Unit
- Rectified Linear Unit
- Rectified Last Unit

Representation Linear 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

False

True

 Expand

 Correct

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

7. A dataset is composed of age and weight data for several people. This dataset is an example of "structured" data because it is represented as an array in a computer. True/False?

1 / 1 point

True

False

 Expand

 Correct

Yes, the sequences can be represented as arrays in a computer. This is an example of structured data.

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

1 / 1 point

RNNs are much more powerful than a Convolutional neural Network (CNN).

The RNN requires a small number of examples.

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).

It can be trained as a supervised learning problem.

 Correct

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

 Expand

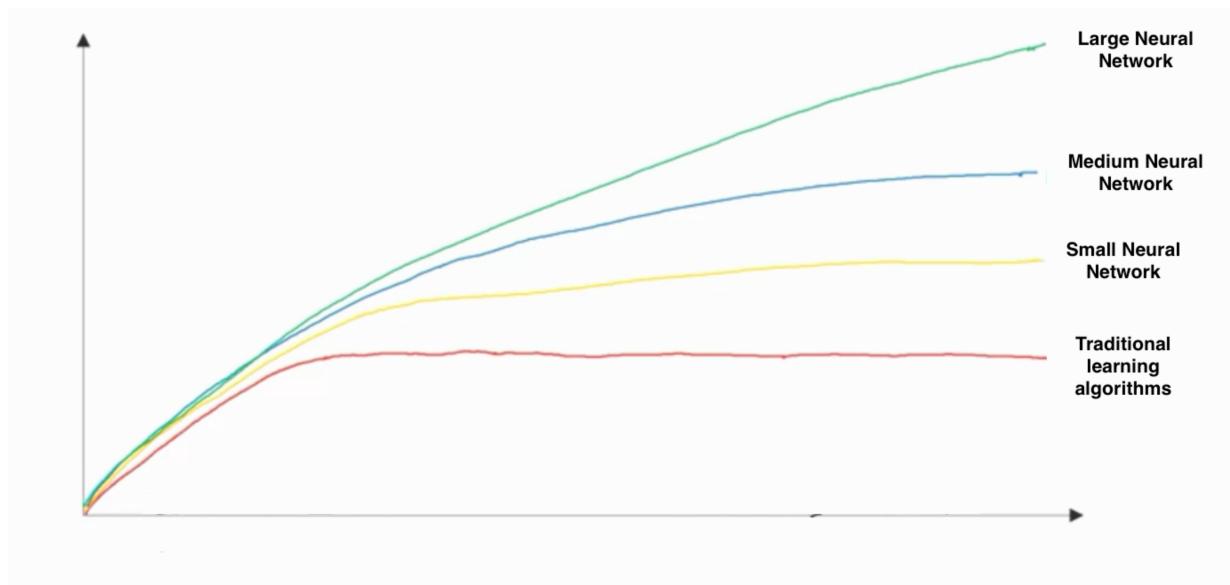
 Correct

Great, you got all the right answers.

9.

1 / 1 point

In this diagram which we hand-drew in the lecture, what do the horizontal axis (x-axis) and vertical axis (y-axis) represent?



- x-axis is the amount of data
• y-axis (vertical axis) is the performance of the algorithm.
- x-axis is the performance of the algorithm
• y-axis (vertical axis) is the amount of data.
- x-axis is the amount of data
• y-axis is the size of the model you train.
- x-axis is the input to the algorithm
• y-axis is outputs.

Expand

Correct

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 / 1 point

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

- 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.