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| **Started on** | Tuesday, March 30, 2021, 6:10 PM |
| **State** | Finished |
| **Completed on** | Wednesday, March 31, 2021, 9:36 PM |
| **Time taken** | 1 day 3 hours |
| **Points** | 9.00/9.00 |
| **Grade** | **100.00** out of 100.00 |

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Question **1**

Correct

1.00 points out of 1.00

Flag question

Question text

Which of the following deep learning model architectures would we expect to perform the \*worst\* on an NLP classification task?

Select one:

a. Vanilla RNN

b. LSTM

c. Feed-Forward Neural Network

d. CNN

Feedback

Your answer is correct.

The correct answer is: Feed-Forward Neural Network

Question **2**

Correct

1.00 points out of 1.00

Flag question

Question text

What did RNNs add to neural networks that were previously not included?

Select one:

a. Cross-entropy loss

b. Softmax layer

c. Activation function

d. Memory

Feedback

Your answer is correct.

The correct answer is: Memory

Question **3**

Correct

1.00 points out of 1.00

Flag question

Question text

What is one drawback of RNNs that LSTMs fixed?

Select one:

a. They assume independence of the words in the data

b. the vanishing gradient problem

c. They are simpler and more user-friendly

d. They cannot be processed in parallel because they are sequential

Feedback

Your answer is correct.

The correct answer is: the vanishing gradient problem

Question **4**

Correct

1.00 points out of 1.00

Flag question

Question text

The filter mechanism in the CNN architecture we discussed is similar to what, from our first lecture?

Select one:

a. N-grams

b. Maximum likelihood estimate

c. Perplexity

d. Language models

Feedback

Your answer is correct.

The correct answer is: N-grams

Question **5**

Correct

1.00 points out of 1.00

Flag question

Question text

Which of the following is not one of the types of gate in an LSTM?

Select one:

a. Input

b. Innovate

c. Output

d. Forget

Feedback

Your answer is correct.

The correct answer is: Innovate

Question **6**

Correct

1.00 points out of 1.00

Flag question

Question text

Consider a sentence where you are trying to get the value of a location. Someone says "I live in Ann Arbor."  The entity you want to label is "Ann Arbor". What is the tag you would assign to "Arbor"?

Select one:

a. I-LOC

b. B-LOC

c. I-ORG

d. O

Feedback

Your answer is correct.

The correct answer is: I-LOC

Question **7**

Correct

1.00 points out of 1.00

Flag question

Question text

You've trained a biLSTM for named entity recognition tagging, but you notice you're getting I labels for different entities next to one another. What could you add to improve your model?

Select one:

a. Betty

b. A Conditional Random Field (CRF)

c. A softmax layer

d. Cross-entropy loss

Feedback

Your answer is correct.

The correct answer is: A Conditional Random Field (CRF)

Question **8**

Correct

1.00 points out of 1.00

Flag question

Question text

If you're trying to target high precision with your named entity recognition tagger, you might be sacrificing \_\_\_\_\_.

Select one:

a. Perplexity

b. Recall

c. CRF

d. Accuracy

Feedback

Your answer is correct.

The correct answer is: Recall

Question **9**

Correct

1.00 points out of 1.00

Flag question

Question text

Which of these is a problem with traditional seq2seq RNN models?

Select one:

a. Independence of data

b. One-hot encoding

c. the Bottleneck problem

d. Vanishing Gradient

Feedback

Your answer is correct.

The correct answer is: the Bottleneck problem