

Quiz review

Started on	Wednesday, 13 March 2024, 4:53 PM
State	Finished
Completed on	Wednesday, 13 March 2024, 4:55 PM
Time taken	2 mins 49 secs
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct
Mark 1.00 out of 1.00

When using RNNs for music generation, what does each neuron in the output layer typically represent?

- 47562
- ☐ A frequency band
 - ☒ A possible note or rest in the musical vocabulary✓
 - ☐ A specific instrument
 - ☐ A time step in the generated sequence
 - ☐ A note in the C major scale

The correct answer is: A possible note or rest in the musical vocabulary

Question 2

Correct
Mark 1.00 out of 1.00

In the context of natural language processing, how are RNNs typically utilized for machine translation?

- 47562
- ☐ For clustering text data
 - ☐ As discriminators in GANs
 - ☐ For image classification
 - ☐ As a replacement for CNNs
 - ☒ Encoding the input sequence and decoding the output sequence✓

The correct answer is: Encoding the input sequence and decoding the output sequence



Question 3

Correct

Mark 1.00 out of 1.00

Which of the following is NOT a type of RNN architecture?

- ☐ Bidirectional RNN
- ☐ GRU
- ☐ LSTM
- ☐ Simple RNN
- ☒ CNN ✓

The correct answer is: CNN

Question 4

Correct

Mark 1.00 out of 1.00

What is the key advantage of using LSTMs over basic RNNs in sequence generation tasks?

- ☒ Ability to remember long-term dependencies ✓
- ☐ Less prone to overfitting
- ☐ Lower computational cost
- ☐ Faster training speeds
- ☐ Simpler architecture

The correct answer is: Ability to remember long-term dependencies

Question 5

Correct

Mark 1.00 out of 1.00

What does RNN stand for?

- ☐ None of the options given
- ☐ Random Neural Network
- ☐ Regular Neural Network
- ☐ Recursive Neural Network
- ☒ Recurrent Neural Network ✓

The correct answer is: Recurrent Neural Network

Question 6

Correct

Mark 1.00 out of 1.00

RNNs are primarily used for which type of data?

- ☐ Audio
- ☐ None of the options given
- ☒ Sequential ✓
- ☐ Image
- ☐ Tabular

The correct answer is: Sequential

Question 7

Correct

Mark 1.00 out of 1.00

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During the training of RNNs for sequence generation, what is the common technique used to mitigate the vanishing gradient problem?

- ☒ Gradient clipping ✓
- ☐ Data augmentation
- ☐ Dropout
- ☐ Batch normalization
- ☐ L1 regularization

The correct answer is: Gradient clipping

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Question 8

Correct

Mark 1.00 out of 1.00

In NLP, what does RNNs help to predict?

- ☒ Next word ✓
- ☐ Next song note
- ☐ None of the options given
- ☐ Next video frame
- ☐ Next image

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The correct answer is: Next word

Question 9

Correct

Mark 1.00 out of 1.00

Which RNN architecture utilizes update and reset gates to manage memory?

- ☐ LSTM
- ☐ Echo State Network
- ☐ Bidirectional RNN
- ☐ Hopfield Network
- ☒ GRU ✓

The correct answer is: GRU

Question 10

Correct

Mark 1.00 out of 1.00

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Which problem in RNNs does LSTM help to address?

- ☐ All of the options given
- ☐ High variance
- ☐ Overfitting
- ☐ Bias
- ☒ Vanishing gradient ✓

The correct answer is: Vanishing gradient

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