P2S2

Due Feb 1 at 8:30am **Points** 450 **Questions** 17 **Available** Jan 25 at 11:30am - Feb 1 at 8:30am 7 days
Time Limit 30 Minutes

Instructions

Please make sure that you have gone through the 4 code files shared. Only once you have "corrected" some mistakes and performed different experiments, attempt this quiz.

Please note that you do not have time to perform possible experiments while finishing this quiz.

You have 30 minutes to finish the quiz.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	30 minutes	150 out of 450

Score for this quiz: **150** out of 450
Submitted Jan 31 at 9:52pm
This attempt took 30 minutes.

Question 1 — 0 / 25 pts

RNN are good at modeling sequential data, that is why they can match convolution layers in handling images when converted in to sequential data!

You Answered

- (•) True

Correct Answer

- ( ) False

Question 2

25 / 25 pts

Vanishing gradient happens in RNN because of the way Back-Propagation works!

Correct!

- (•) True
- ( ) False

Unanswered

Question 3

0 / 25 pts

Which of the following below can increase the learning of "long-rang" dependencies.

Increasing the RNN layers used (let us say this creates in total 100k neurons, in 40 RNN layers)

Correct Answer

Increasing the neurons in the RNN layer (let us say this creates 100k neurons in 10 RNN layers)

Question 4

0 / 25 pts

Keras has RNN as well as SimpleRNN, what is the difference?

Correct Answer

RNN is the base class which needs to be passed an "RNN cell" instance. This allows us to create custom RNN cells with much more complex internal hidden structures.

SimpleRNN is a fully connected RNN where the output is to be fed back to input. It is pre-built and doesn't need any customization nor does it allows one

You Answered

SimpleRNN is a fully connected RNN where the output is to be fed back to input. It is pre-built and doesn't need any customization nor does it allows one.

RNN is a function which needs to be passed a callback RNN Cell function. This allows us to create custom RNN cells with much more complex internal hidden structures.

Question 5

0 / 25 pts

In EVA P2S3 File 0, if activation "relu" is changed to "tanh", the accuracy, we get higher trainscore?

You Answered

- (●) True

Correct Answer

- ( ) False

Question 6

25 / 25 pts

In EVA P2S3 File 0, if activation "relu" is changed to "tanh", the loss value is in general lower than what we see with "relu"

- ( ) True

Correct!

- (●) False

Question 7

25 / 25 pts

In EVA P2S3 File 0, if we increase N to 2000 and Tp to 1600, the trainscore reduces, but slightly.

- True

Correct!

- False

Question 8

25 / 25 pts

In EVA P2S3 File 0, what is the effect of change "step" from 4 to 40?

Correct!

- We get smaller trainscore
- We get larger trainscore

Question 9

0 / 25 pts

In EVA P2S3 File 1, what effect will we see when we change the batch size from 1024 to 2048?

You Answered

- Much faster convegence

Correct Answer

- Slightly faster convergence

Question 10

25 / 25 pts

EVA P2S3 File 1, why is RMSProp used?

- NO specific purpose, SGD will also work the same.

Correct!

- (•) RMSProp for RNNs is much more stable and gives steady convergence.

Unanswered

Question 11

0 / 25 pts

In EVA P2S2 File 2, when we add another SimpleRNN(64), we added 2080 additional parameters.

- True

Correct Answer

- False

Unanswered

Question 12

0 / 50 pts

In EVA P2S2 File 2, we add another model.add(SimpleRNN(32))

Model overfits the data

Correct Answer

Model's validation accuracy increases

Question 13

25 / 25 pts

In EVA P2S2 File 2, the dense layer has 33 params, because

Correct!

of 32 inputs + bias variable

of 33 classes

Unanswered

Question 14

0 / 25 pts

In EVA P2S2 File 2, in the original shared code, if we replace the dense layer activation to "relu", the model

of course trains very well!

Correct Answer

of course doesn't train as well

Question 15

0 / 25 pts

In EVA P2S2 File 3, if the batch_size (the first time we mention it) is changed from 64 to 512, the total number of parameters in the embedding layer changes to 5120000

Correct Answer

- True

You Answered

- False

Unanswered

Question 16

0 / 25 pts

In EVA P2S2 File 3, if we change loss from categorical_crossentropy to binary_crossentropy

- We would be training a much better model

Correct Answer

- The model is actually not training

Unanswered

Question 17

0 / 25 pts

In EVA P2S2 File 3, using "return_sequences=True" is not required in the third SimpleRNN

- True

Correct Answer

- False

Quiz Score: **150** out of 450