Week 3 Quiz

Quiz, 8 questions

8/8 points (100%)

Congratulations! You passed!

Next Item

1 / 1 point

1.

If X is the standard notation for the input to an RNN, what are the standard notations for the outputs?

- **Y**
- **H**
- **Y(hat) and H**

Correct

- **H(hat) and Y**

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1 / 1 point

2.

What is a sequence to vector if an RNN has 30 cells numbered 0 to 29

- **The average Y(hat) for all 30 cells**
- **The Y(hat) for the first cell**
- **The total Y(hat) for all cells**
- **The Y(hat) for the last cell**

Correct

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1 / 1 point

3.

What does a Lambda layer in a neural network do?

- [x] **Allows you to execute arbitrary code while training**

Correct

- [ ] **Pauses training without a callback**
- [ ] **Changes the shape of the input or output data**
- [ ] **There are no Lambda layers in a neural network**

1 / 1 point

4.

What does the axis parameter of tf.expand_dims do?

- [x] **Defines the dimension index at which you will expand the shape of the tensor**

Correct

- [ ] **Defines the dimension index to remove when you expand the tensor**
- [ ] **Defines if the tensor is X or Y**
- [ ] **Defines the axis around which to expand the dimensions**

1 / 1 point

5.

A new loss function was introduced in this module, named after a famous statistician. What is it called?

Hubble loss

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Hawking loss

Hyatt loss

Huber loss

Correct

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1 / 1 point

6.

What's the primary difference between a simple RNN and an LSTM

In addition to the H output, RNNs have a cell state that runs across all cells

In addition to the H output, LSTMs have a cell state that runs across all cells

Correct

LSTMs have multiple outputs, RNNs have a single one

LSTMs have a single output, RNNs have multiple

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1 / 1 point

7.

If you want to clear out all temporary variables that tensorflow might have from previous sessions, what code do you run?

tf.cache.clear_session()

tf.cache.backend.clear_session()

tf.keras.backend.clear_session()

Correct

tf.keras.clear_session

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1 / 1 point

8.

What happens if you define a neural network with these two layers?

tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),

tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),

tf.keras.layers.Dense(1),

- **Your model will fail because you need return_sequences=True after each LSTM layer**
- **Your model will fail because you have the same number of cells in each LSTM**
- **Your model will compile and run correctly**
- **Your model will fail because you need return_sequences=True after the first LSTM layer**

Correct