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Quiz review

Started on	Wednesday, 13 March 2024, 6:52 PM
State	Finished
Completed on	Wednesday, 13 March 2024, 6:54 PM
Time taken	1 min 57 secs
Marks	10.00/10.00
Grade	**100.00** out of 100.00

Question 1
Correct
Mark 1.00 out of 1.00

The Transformer architecture introduced the concept of self-attention to handle which primary challenge in sequence modeling?

○ Reducing model size

○ Improving model robustness

○ Handling larger input sizes

○ Speeding up training

◉ Capturing dependencies regardless of their distance in the input ✔

The correct answer is: Capturing dependencies regardless of their distance in the input

Question 2
Correct
Mark 1.00 out of 1.00

Which application showcases the use of Transformers in image tasks?

○ Sequence alignment

○ Speech recognition

○ Text summarization

○ Named entity recognition

◉ Image generation using DALL·E ✔

The correct answer is: Image generation using DALL·E

Question 3

Correct

Mark 1.00 out of 1.00

What is the primary advantage of pretraining a Transformer on a large corpus before fine-tuning on a specific task?

- ⦿ It allows the model to leverage general language understanding ✔
- ○ It makes the model more robust to adversarial attacks
- ○ It speeds up the fine-tuning process
- ○ It makes the model smaller
- ○ It reduces the risk of overfitting

The correct answer is: It allows the model to leverage general language understanding

Question 4

Correct

Mark 1.00 out of 1.00

In the context of Transformers for language translation, what does the encoder primarily focus on?

- ⦿ Processing and representing the source language ✔
- ○ Generating the final translation
- ○ Handling attention mechanisms
- ○ Reducing the sequence length
- ○ Decoding the target language

The correct answer is: Processing and representing the source language

Question 5

Correct

Mark 1.00 out of 1.00

What is the primary component of the Transformer architecture that helps it handle sequences?

- ○ LSTM
- ⦿ Attention Mechanism ✔
- ○ None of the options given
- ○ CNN
- ○ RNN

The correct answer is: Attention Mechanism

Question 6

Correct

Mark 1.00 out of 1.00

What does the Multi-head attention mechanism in Transformers help with?

○ Speeding up training

○ Reducing model size

○ None of the options given

◉ Capturing different types of information from the input ✔

○ Improving regularization

The correct answer is: Capturing different types of information from the input

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Question 7

Correct

Mark 1.00 out of 1.00

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Why is attention particularly crucial in sequence-to-sequence tasks like translation?

○ It ensures the output is of a fixed size

○ It reduces the model's size

◉ It allows the model to focus on relevant parts of the input when producing an output ✔

○ It speeds up the training process

○ It makes the model more interpretable

The correct answer is: It allows the model to focus on relevant parts of the input when producing an output

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Question 8

Correct

Mark 1.00 out of 1.00

Which of the following is NOT a sequence-to-sequence task?

◉ Image Classification ✔

○ Translation

○ None of the options given

○ Question Answering

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○ Summarization

The correct answer is: Image Classification

Question 9

Correct

Mark 1.00 out of 1.00

Which Transformer model is specifically designed for language translation?

○ GPT

○ DALL·E

◉ T5 ✔

○ BERT

○ Image GPT

The correct answer is: T5

Question 10

Correct

Mark 1.00 out of 1.00

What is the first step in training a Transformer model for a specific task?

○ Fine-tuning

◉ Pre-training ✔

○ Initialization

○ Backpropagation

○ None of the options given

The correct answer is: Pre-training

◀ **Sentiment Analysis with RNNs - Case study**

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Transformers and Attention Mechanisms ▶