Your grade: 100%

Your latest: 100% • Your highest: 100% • To pass you need at least 60%. We keep your highest score.

Next item

1. Which of the following is the most popular feature of Hugging Face? 1 / 1 point

- Tokenizers library
- Building neural networks
- (•) Transformers library
- Datasets library

Correct
The most popular feature of Hugging Face is its Transformers library, which offers several pre-trained models, such as BERT, GPT, and T5, ready for various NLP tasks.

2. Which of the following fine-tuning approaches do you apply if the model wants to learn to predict missing words in a large, unlabeled dataset, such as next words or masked words? 1 / 1 point

- Supervised fine-tuning
- (•) Self-supervised fine-tuning
- Reinforcement learning from human feedback (RLHF)
- Direct preference optimization (DPO)

Correct
In self-supervised fine-tuning, the model learns to predict missing words in a large, unlabeled dataset, such as next words or masked words.

3. Consider the following code snippet: 1 / 1 point

```
class Net(nn.Module):
 def __init__(self, num_class, vocab_size, freeze=True, nhead=2, dim_feedforward=128, \
  num_layers=2, dropout=0.1, activation="relu", classifier_dropout=0.1):

  super().__init__()

  self.emb = nn.Embedding.from_pretrained(glove_embedding.vectors,freeze=freeze)
  embedding_dim = self.emb.embedding_dim

  self.pos_encoder = PositionalEncoding(d_model=embedding_dim, dropout=dropout,
    vocab_size=vocab_size,)

  encoder_layer = nn.TransformerEncoderLayer(d_model=embedding_dim, nhead=nhead,
    dim_feedforward=dim_feedforward, dropout=dropout,)

  self.transformer_encoder = nn.TransformerEncoder( encoder_layer, num_layers=num_layers,)
  self.classifier = nn.Linear(embedding_dim, num_class)
  self.d_model = embedding_dim
```

Select the correct statement regarding the given code snippet.

- (•) This code snippet indicates the constructor that initializes the text classifier with configurations such as the number of classes, vocabulary size, and transformer settings.
- This code snippet trains a transformer model using the provided optimizer and loss criterion.
- This code snippet converts the dataset into map-style datasets and performs a random split.
- This code snippet takes in a text and a text pipeline, which preprocesses the text for machine learning.

Correct
The code snippet is a constructor that initializes the text classifier with configurations such as the number of classes, vocabulary size, and transformer settings (like the number of heads and layers). It also sets up the essential components: embeddings, positional encoding

transformer settings (like the number of heads and layers). It also sets up the essential components: embeddings, positional encoding, transformer encoder, and a linear classifier for output.

4. Which of the following statements is correct regarding an SFT Trainer? 1 / 1 point

- ○ It determines the number of neurons in the final layer.
- ◉ It simplifies and automates training tasks.
- ○ It evaluates the model's performance.
- ○ It extracts the text from the dataset.

Correct
The SFT Trainer (or Supervised Fine-Tuning Trainer) simplifies and automates many training tasks, making the process more efficient and less error-prone than training with PyTorch directly.