

Your grade: 80%

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Next item →

1. What is the primary purpose of using a pretrained model in neural network training?

1 / 1 point

- ☐ To avoid the need for a validation dataset.
- ☐ To prevent overfitting by using a smaller dataset.
- ☐ To ensure 100% accuracy in classification tasks.
- ☒ To save time and computational resources by leveraging already learned features.

Correct

Correct! Pretrained models help save time and computational resources by using already learned features.

2. When replacing the final classification layers of a pretrained model, what steps should be taken?

1 / 1 point

☒ Initialize the new layers with random weights.

Correct

Correct! The new layers are often initialized with random weights before training.

☐ Ensure the new layers have a higher number of neurons than the original layers.

☐ Set the learning rate to zero for the new layers.

☒ Add new layers compatible with the number of classes in the new task.

Correct

Correct! Adding new layers that match the number of classes in the new task is necessary for proper classification.

☒ Remove the existing classification layers.

Correct

Correct! The existing classification layers should be removed to adapt the model for the new task.

3. What is the primary purpose of using the Adam optimizer in training an LSTM model?

1 / 1 point

- ☐ To increase the model's complexity
- ☐ To reduce the number of training epochs required
- ☒ To adapt the learning rate for each parameter
- ☐ To maintain a constant learning rate

Correct

Correct! The Adam optimizer adjusts the learning rate for each parameter, which helps in faster and more efficient convergence.

4. Which PyTorch function is used to change the shape of a tensor without changing its data?

0 / 1 point

- ☐ expand
- ☐ view
- ☐ squeeze
- ☒ reshape

Incorrect

Incorrect. Although `reshape` can change the shape of a tensor, it's not as efficient as `view` since it may create a copy.

5. Which of the following are steps involved in implementing an LSTM model to predict the progression of a noisy trigonometric function over time?

1 / 1 point

☐ Using ReLU activation function

☒ Forward function implementation

Correct

Correct! Implementing the forward function is key to defining how data flows through the network.

☒ Dataset setup

Correct

Correct! Setting up the dataset is a crucial step in implementing an LSTM model.

☒ Training with mean square error loss and Adam optimizer

Correct

Correct! Training the model with the appropriate loss function and optimizer is necessary for effective learning.

☒ Model class definition

Correct

Correct! Defining the model class is essential to structure the LSTM network.