Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 80%. We keep your highest score.

Next item →

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

- ○ To ensure 100% accuracy in classification tasks.
- ○ To avoid the need for a validation dataset.
- ○ To prevent overfitting by using a smaller dataset.
- ◉ 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. Which of the following are benefits of using transfer learning in neural networks? 1 / 1 point

- ☐ Elimination of the need for data augmentation.
- ☐ Simplified model architecture.
- ☑ Reduced training time.

Correct
Correct! Transfer learning reduces training time by leveraging pre-learned features.

- ☑ Improved model accuracy with less data.

Correct
Correct! Transfer learning can improve accuracy even with less data by utilizing features from pretrained models.

- ☑ Enhanced feature extraction.

Correct
Correct! Transfer learning enhances feature extraction by using pretrained models as a starting point.

3. 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

- ☑ Model class definition

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

- ☑ Dataset setup

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

- ☑ Forward function implementation

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

- ☑ 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.

- ☐ Using ReLU activation function

4. What is an advantage of Long Short-Term Memory (LSTM) cells over basic Recurrent Neural Network (RNN) cells? 1 / 1 point

- ◉ LSTM cells can better capture long-term dependencies in data
- ○ LSTM cells eliminate the need for activation functions
- ○ LSTM cells are simpler to implement
- ○ LSTM cells require less computational power

Correct
Correct! LSTM cells are specifically designed to address the vanishing gradient problem, making them more effective at capturing long-term dependencies.

5. Which PyTorch function is used to change the shape of a tensor without changing its data? 1 / 1 point

- ○ expand

- ○ squeeze
- ○ reshape
- ◉ view

Correct
Correct! The `view` function in PyTorch is used to reshape a tensor without altering its data.