Your grade: 96.66%

Your latest: **80%** • Your highest: **96.66%** • To pass you need at least 80%. We keep your highest score.

Next item →

1. Which of the following processes are involved in training a neural network model? 1 / 1 point

- [x] Initializing Gradients

  Correct
  Correct! Initializing gradients is one of the steps in training a neural network model.

- [x] Updating Weights

  Correct
  Correct! Updating weights is part of the training process of a neural network model.

- [ ] Model Deployment
- [x] Forward Pass

  Correct
  Correct! Forward pass is an essential step in training a neural network model.

- [x] Backward Pass

  Correct
  Correct! Backward pass is an important step in updating the weights of the model.

- [ ] Data Augmentation

2. What metric would you use to compare the performance of a naive classifier with more advanced models in a multi-label classification problem? 0 / 1 point

- ( ) Precision
- ( ) Accuracy
- ( ) Recall
- (•) F1 Score

Incorrect
F1 Score is valuable but accuracy is commonly used for overall comparison. Revisit the evaluation metrics used for classification models.

3. In a Convolutional Neural Network (CNN), what is the purpose of using convolutional filters? 1 / 1 point

- (•) To detect specific features such as edges or textures in the input image.
- ( ) To normalize the input data.
- ( ) To reduce the number of parameters in the network.
- ( ) To prevent overfitting during the training process.

Correct
Correct! Convolutional filters are used to detect specific features like edges and textures which are critical for image recognition.

4. Which of the following techniques is used to reduce the spatial dimensions of an image in a Convolutional Neural Network (CNN)? 1 / 1 point

- ( ) Batch normalization
- (•) Max pooling
- ( ) Convolution
- ( ) Dropout

Correct
Correct! Max pooling is commonly used to reduce the spatial dimensions of an image while retaining important features.

5. What is the primary purpose of generating a spectrogram in audio classification? 1 / 1 point

- ( ) To reduce the noise in audio data.
- ( ) To speed up the training process of neural networks.
- (•) To convert audio signals into a visual format that can be processed by CNNs.
- ( ) To improve the audio quality before classification.

Correct
Correct! Spectrograms convert audio signals into visual representations, making it easier for convolutional neural networks to analyze the data.

convolutional neural networks to analyze the data.