Your grade: 100%

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

Next item →

1. Which command is used to activate a Conda environment in your terminal? 1 / 1 point

- ○ conda start [environment_name]
- ◉ conda activate [environment_name]
- ○ start conda [environment_name]
- ○ activate conda [environment_name]

Correct
Correct! This is the standard command to activate a Conda environment.

2. Which of the following are correct steps in developing a machine learning model? Select all that apply. 1 / 1 point

- ☐ Writing complex rules
- ☑ Model deployment

Correct
Correct! Deploying the model is the final step to make it available for use in real-world applications.

- ☑ Feature engineering

Correct
Correct! Feature engineering involves selecting and transforming variables to improve the model's performance.

- ☑ Model training

Correct
Correct! Training the model on collected data is a crucial step in the development process.

- ☑ Data collection

Correct
Correct! Collecting relevant data is the first step in developing any machine learning model.

3. Which application is an example of artificial intelligence in the present day? 1 / 1 point

- ○ Manual data entry
- ◉ Personalized recommendations on streaming services
- ○ Static content websites
- ○ Traditional programming loops

Correct
Correct! Personalized recommendations on streaming services use AI to suggest content based on user preferences.

4. What is the primary reason for the popularity and improvement of deep learning in recent years? 1 / 1 point

- ○ Reduction in the cost of cloud storage
- ◉ Advances in computational power, especially GPUs
- ○ Improvement in classical machine learning algorithms
- ○ Availability of large datasets

Correct
Correct! Advances in computational power, particularly GPUs, have significantly contributed to the rise of deep learning.

5. Which of the following statements correctly describe the process and importance of gradient descent in training neural networks? Select all that apply. 1 / 1 point

- ☑ A very high learning rate in gradient descent can cause the model to overshoot the minimum and fail to converge.

Correct
Correct! A high learning rate can indeed cause the model to diverge instead of converging.

- ☑ The learning rate in gradient descent determines the size of the steps taken towards the minimum of the loss function.

Correct
Correct! The learning rate is crucial in controlling the pace at which the model learns.

- [ ] Gradient descent is irrelevant in training neural networks and is used only in traditional machine learning algorithms.
- [ ] Gradient descent guarantees finding the global minimum of the loss function in all cases.
- [x] Gradient descent helps in finding the minimum of the loss function by iteratively updating model parameters.

Correct
Correct! Gradient descent is a key optimization technique for minimizing the loss function during training.