Assignment 3

Deep Reinforcement Learning

Actor-Critic Methods

Implement an actor-critic method using PyTorch to develop a program capable of playing the Cliff Walking game.

Instructions:

1. Use the actor-critic method for reinforcement learning.
2. Utilize PyTorch for implementing the algorithm.
3. The program should be able to navigate the Cliff Walking game environment.

Submission Guidelines:

1. Submit the Python code containing the implementation.
2. Your submission should contain screenshots of your trained model playing the game, and the score achieved at the end of the episode (using a trained model).
3. Include comments and documentation to explain the logic and functionality of the code.
4. Provide a brief explanation of the actor-critic method and how it is applied in the context of reinforcement learning and PyTorch.
5. Ensure the code is well-structured, readable, and follows best practices of coding standards.

Deadline: 7th April 2024.

Note: Any additional resources or libraries required for the implementation should be properly documented and included in the submission

Hint: You can utilize the code given in lecture 10 to easily implement this assignment.