Replacement Practice Assignment

Practice Assignment • 45 min

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English

Your grade: 80%

Your latest: **80%** • Your highest: **80%**

To pass you need at least 80%. We keep your highest score.

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Instructions

1. Which of the following are the most accurate characterizations of sample models and distribution models? (Select all that apply) 1 point

- [ ] A sample model can be used to obtain a possible next state and reward given the current state and action, whereas a distribution model can only be used to compute the probability of this next state and reward given the current state and action.
- [x] A distribution model can be used as a sample model.

Correct
Correct; a distribution model contains all the information about the transition dynamics of the system, which can be used to 'sample' new states and rewards given the current state and action – just like a sample model.

- [ ] Both sample models and distribution models can be used to obtain a possible next state and reward, given the current state and action.
- [ ] A sample model can be used to compute the probability of all possible trajectories in an episodic task based on the current state and action.

You didn't select all the correct answers

2. Which of the following statements are TRUE for Dyna architecture? (Select all that apply) 1 / 1 point

- [x] Real experience can be used to improve the value function and policy

Correct
Correct; we do this in the direct-RL step of the tabular Dyna-Q algorithm

- [ ] Simulated experience can be used to improve the model
- [x] Real experience can be used to improve the model

Correct
Correct; we do this in the model-learning step of the tabular Dyna-Q algorithm

- [x] Simulated experience can be used to improve the value function and policy

Correct
Correct; we do this in the planning step of the tabular Dyna-Q algorithm

3. Mark all the statements that are TRUE for the tabular Dyna-Q algorithm. (Select all that apply) 1 point

- [x] For a given state-action pair, the model predicts the next state and reward