

MC & TD

Quiz, 4 questions

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1.

Why do we need function approximation in RL? Check all that apply.

- ☒ Because we want our agent to be memory-, space- and data efficient.
 - ☐ Learning with tabular methods is much more unstable compared to learning with function approximation.
 - ☐ Relying on function approximation allows us to achieve greater reward in any environment.
 - ☒ Because the state and action space may be big or combinatorially enormous, rendering tabular methods impossible to use.
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2.

Monte-Carlo learning (MC) vs Temporal Difference learning (TD). Select all options that apply.

- ☒ In TD learning we can use as few as one step of experience (s, a, r, s') to update the model.
 - ☐ In TD learning we cannot update the model until the end of an episode is reached.
 - ☐ MC targets have small variance.
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-

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3.

In TD learning we approximate...

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☐

Policy function.

☐

Value function.

☐

Expectation of targets.

☐

Reward function.

☐

Discount factor γ .

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4.

What is correct about Offline and Online methods?

☐

TD is online.

☐

MC is offline.

☐

MC is online.

☐

TD is offline.

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