MDPs

Over the next several videos, you'll learn all about how to rigorously define a reinforcement learning problem as a **Markov Decision Process (MDP)**.

Towards this goal, we'll begin with an example!

Notes

In general, the state space $\mathcal{S}$ is the set of **all nonterminal states**.

In continuing tasks (like the recycling task detailed in the video), this is equivalent to the set of **all states**.

In episodic tasks, we use $\mathcal{S}^+$ to refer to the set of **all states, including terminal states**.

The action space $\mathcal{A}$ is the set of possible actions available to the agent.

In the event that there are some states where only a subset of the actions are