

Planning to Maximize Reward:

Markov Decision Processes



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Slides adapted from:
Manuela Veloso,
Reid Simmons, &
Tom Mitchell, CMU

Markov Decision Processes

- Motivation
- What are Markov Decision Processes?
- Computing Action Policies From a Model
- Summary

Reading and Assignments

- Markov Decision Processes
 - Read AIMA Chapters 17 sections 1 – 4.
Or equivalent in new text
- Reinforcement Learning
 - Read AIMA Chapter 20
Or equivalent in new text
- Next Homework:
 - involves coding MDPs, RL and HMM Belief Update
- ❖ Lecture based on development in:
“Machine Learning” by Tom Mitchell
Chapter 13: Reinforcement Learning