


# **Artificial Intelligence Programming**

## *Sequential Decision Making*

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# Making Sequential Decisions

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- Previously, we've talked about:
  - Making one-shot decisions in a deterministic environment
  - Making sequential decisions in a deterministic environment
    - Search
    - Inference
    - Planning
  - Making one-shot decisions in a stochastic environment
    - Probability and Belief Networks
    - Expected Utility
- What about sequential decisions in a stochastic environment?

# Sequential Decisions

- We've thought a little bit about this in terms of value of information.
- We can model this as a state-space problem.
- We can even use a minimax-style approach to determine the optimal actions to take.

