

Intro to RL

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Intro

- we start off not knowing much
- we learn by interacting w/ environment.
- cause - & - effect

Applications

- Self-Driving cars
- Board Games
- Video Games
- Robot Tasks (e.g. walking)

The Setting

learner: "agent"
setting: "environment"

Analogy: Puppy interacting w/ owner ("environment")
that rewards based on actions

Exploration - Exploitation Dilemma

- Exploration: Exploring hypothesis
- Exploitation: Exploiting limited knowledge of what knows works well
- How do we balance the two?
- How do we maximize rewards in long-term.