Q Learning and Deep Q Network

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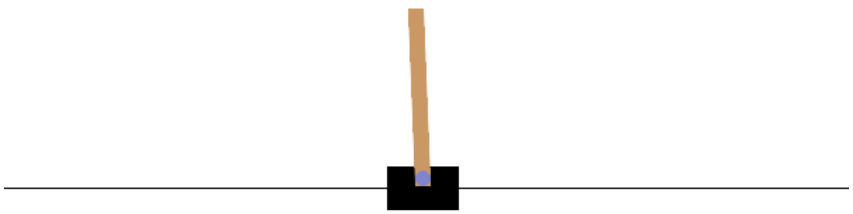
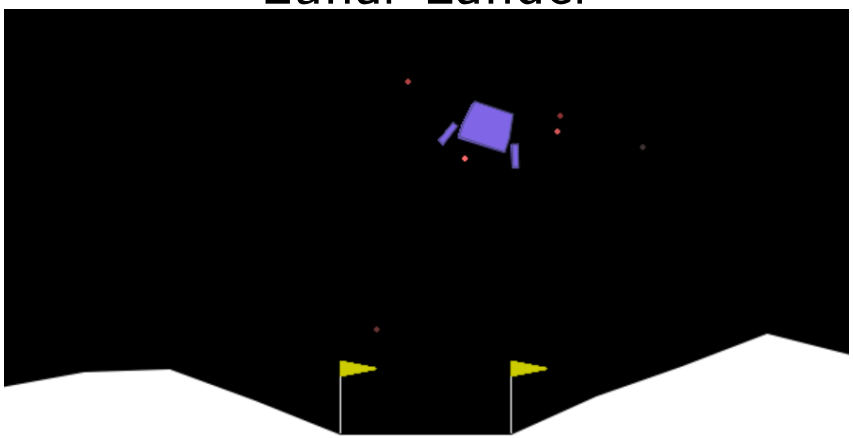
Games

CartPole



Lunar Lander



Agents

- Q Learning
  - Model-free reinforcement learning algorithm
  - Uses a table to store Q values for each state-action pair
  - Effective in simple environments
  - Struggles in more complexe environments since it is impractical to store and update Q values for all the state-action pairs
- Deep Q Network (DQN)
  - Uses neural networks to learn policies to map states to Q values
  - Neural networks can handle large state spaces and continuous action spaces

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Background