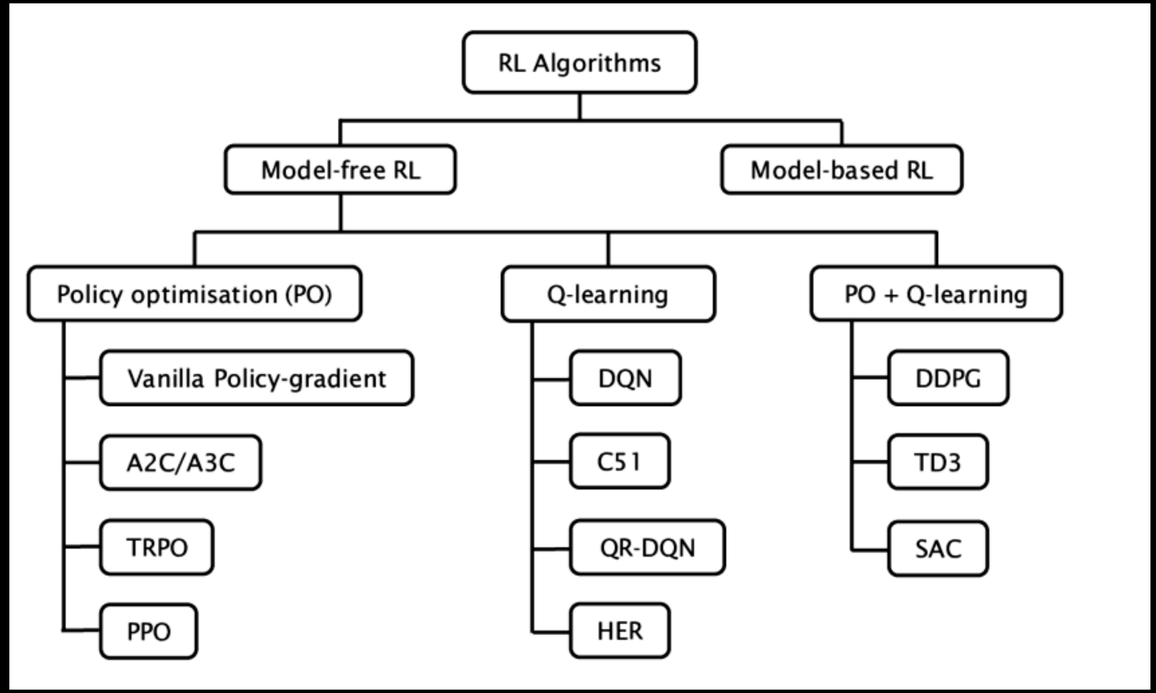
Deep Reinforcement Learning

Overview of DRL algorithms

- **Model Based:**
  - State transition probabilities are **known** (the game/environment is known)
  - Useful for single player games with entire game state known
  - “Plan” (or brute-force) the best possible action
- **Model Free:**
  - Rely on “learning”
  - Unbiased assumptions about environment
  - Accurate value or optimal policy functions are learned through trial and error



Deep Reinforcement Learning

Deep Learning and Neural Networks

- Inspired by human brain
- *Learn/optimize by deriving tensor calculations (during backpropogation) to minimize/maximize the error/loss.*
- They are **universal function approximators**