

Introduction to Machine Learning

Introduction - Ontology of ML Tasks



ADDITIONAL LEARNING TASKS / 2

Semi-Supervised learning

- Large amount of labeled data necessary to train reliable model
- Creating labeled datasets often very expensive
- Learn from labeled (expensive) **and** unlabeled (cheap) data
- Unlabeled data in conjunction with a small amount of labeled data improves learning accuracy



Reinforcement learning

- Select actions in subsequent states within a certain environment to maximize lagged future reward
- Example: train neural net to play mario kart (environment)
 - Accelerate/ steer/ break (actions) at each time point (states) during playing
 - Reward: ranking after finish, should be maximized