

# Purpose of Tutorial

Zohreh Raziei

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This tutorial presents an introduction to reinforcement learning (RL). Reinforcement learning is developing rapidly and creating a huge amount of algorithms for different applications. Hence, it is important to be familiar with the basic intuition of RL. Therefore, this tutorial focus on more intuitive aspects rather than pure mathematical concepts.

In this tutorial, first, I am going to talk about a brief history of RL, then the difference between machine learning methodologies. In order to figure out how to solve an RL problem, I am going through one of the famous RL problems, named Multi-Arms Bandit Problem. Also, I will talk about the intuition and implementation of two well-known algorithms for sampling techniques for solving the multi-armed bandit problem, namely, Upper Confidence Bound (UCB) and Thompson Sampling. Moreover, I will explain the implementation of both algorithms in R.