Reinforcement Learning (RL) is a branch of machine learning where agents learn to make decisions by interacting with an environment to maximize cumulative rewards. RL uses concepts like states, actions, and rewards, combined with techniques such as Q-learning and policy gradients. Popular applications include robotics, gaming, and resource management. Unlike supervised learning, RL does not rely on labeled datasets but rather learns through trial and error. The success of RL models often depends on a well-defined reward function and the ability to balance exploration with exploitation. Despite its potential, RL faces challenges like scalability, sample efficiency, and real-world deployment.