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| Title: | Markov Decision Process and Its Applications |
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| Abstract: | This thesis investigates the potential of Markov decision processes (MDP) as a tool for solving complex decision-making problems in real-life scenarios. The project delves into the application of MDP in stochastic games, specifically by analyzing an inventory duopoly with a yield uncertainty problem as part of the operations research problem. The thesis also explores the role of MDP in analyzing the budget allocation problem in the Voter Model, a popular model in opinion dynamics. The study provides a comprehensive analysis of MDP's effectiveness in solving real-life problems and highlights its benefits over other decision-making models. The project offers insights into how MDP can be effectively used to analyze and solve real-life problems and provides directions for future research in this area. |
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