

Reinforcement Learning Agent for the Snake Game: Project Proposal

Antoine Bossan - Benjamin Juillet - Sebastian Lee

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Introduction

This proposal outlines our plan to develop a reinforcement learning (RL) agent capable of playing and excelling at the Snake game. Our project aims to apply core RL concepts learned in the course to a practical problem, exploring both the theoretical underpinnings and practical implementation aspects of RL algorithms.

Motivation

The Snake game represents an ideal RL problem due to its simplicity and well-defined rules, making it a perfect candidate for applying and testing various RL algorithms. The project is motivated by the desire to understand how different RL approaches can handle decision-making in dynamic environments and to compare their effectiveness in a controlled setting.

This project offers a hands-on opportunity to apply reinforcement learning techniques to a well-known problem, allowing us to deepen our understanding of RL concepts and their practical applications. We look forward to developing an agent that not only performs well but also provides insights into the strengths and limitations of different RL approaches.