INFO-F-311: Artificial Intelligence - Project 2: Recherche adversariale

Bourgeois Noé

2023 October 29

Contents

1 Introduction

This report outlines the application of adversarial search techniques in graph search problems. For references, please refer to the project instructions.

2 Environment Setup

2.1 Rust

Instructions for setting up Rust environment.

2.2 Poetry

Instructions for setting up Poetry and Python environment.

2.3 Tests

Instructions for running automated tests using pytest.

3 Results

3.1 Minimax

Discussion and analysis of results using Minimax.

3.2 Alpha-beta pruning

Discussion and analysis of results using Alpha-beta pruning.

3.3 Expectimax

Discussion and analysis of results using Expectimax.

4 Heuristics Development

Discussion of evaluation functions used in multi-agent adversarial scenarios.

5 Comparative Analysis

Comparative analysis of states expanded using different algorithms on custom maps.

6 ChatGPT Usage

6.1 Data Dump

Updated data dump information for this project.

6.2 Filtering Output

Description of how ChatGPT's output was filtered for this project.

7 Bug Reporting in Laser Learning Environment

Instructions for reporting bugs in LLE.

8 References

Updated list of references.