RL-reversi

Cameron Humphreys

Student: 101162528 Email: CameronHumphreys@cmail.carleton.ca

Lauris Petlah

Student: 101156789 Email: laurispetlah@cmail.carleton.ca

Sukhrobjon Eshmirzaev

Student: 101169793 Email: SukhrobjonEshmirzaev@cmail.carleton.ca

Awwab Mahdi

Student: 101225637 Email: awwabmahdi@cmail.carleton.ca

Vivek Chand

Student: 101119792 Email: VivekChand@cmail.carleton.ca

1 Problem Statement

We are working on using Reinforcement Learning to teach an agent to play the game Reversi/Othello through self-play.

2 Feasibility

3 Milestones

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce elementum dolor eu odio interdum malesuada. Interdum et malesuada fames ac ante ipsum primis in faucibus. Phasellus et dolor vel mi ultrices dapibus. Quisque condimentum, libero nec iaculis malesuada, diam nunc blandit enim, et varius tellus justo id enim. Sed lectus neque, faucibus non nunc quis, tempor molestie orci. Fusce venenatis eros nec odio vestibulum pretium. Ut in mattis purus. Sed molestie dignissim quam, nec venenatis neque. Mauris ullamcorper quam in elit egestas, ut luctus arcu malesuada. Sed consequat nunc arcu, at egestas lacus lobortis vitae. Integer ut urna nisl. Curabitur eu justo quis mi auctor dapibus eget eget justo. Pellentesque id dapibus nulla, ac efficitur est. Praesent ut auctor purus. Morbi non nibh magna.

Donec euismod justo sapien, imperdiet consequat nisi aliquet sagittis. Integer in pretium dolor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc vel ligula venenatis, fringilla orci nec, aliquam est. Donec id sem viverra, blandit diam a, vestibulum eros. Aenean arcu velit, placerat vitae sollicitudin vel, tristique id mauris. Duis auctor diam imperdiet nisl portitor, ut bibendum nulla sollicitudin. Maecenas dapibus nulla at enim bibendum, vitae venenatis nisl pellentesque. Proin leo nisi, cursus non volutpat in, mollis et lorem. Sed sed lectus sed velit ullamcorper commodo. Nunc cursus metus eget feugiat tempor. Aliquam eu tortor augue. Vestibulum libero tortor, iaculis in urna eu, volutpat placerat neque. Integer commodo facilisis velit. In vel auctor tellus, quis volutpat orci. Nullam tempus, augue et laoreet laoreet, odio tellus tristique diam, ut sollicitudin quam risus quis ipsum.

Phasellus a dui quis dui suscipit commodo. Curabitur in dui lorem. Praesent malesuada orci a sollicitudin semper. Nulla facilisi. Etiam id eros efficitur dolor lobortis accumsan. Etiam at cursus magna. Interdum et malesuada fames ac ante ipsum primis in faucibus. Nunc leo ipsum, luctus nec eros sed, elementum rutrum quam.

Integer interdum, sapien eget imperdiet lobortis, nibh nulla venenatis quam, vel viverra tellus felis non dui. Fusce vitae enim purus. Aenean at ullamcorper augue, eu molestie lorem. Ut commodo nisl

Table 1: Milestone Dates

	Part
Date	Milestone
30/10/2023	Enviroment Demo
06/12/2023 10/12/2023	Result Demo Project Report

in dui vehicula, vitae dapibus mauris volutpat. Duis at dui euismod, molestie magna quis, egestas nunc. Maecenas tristique a justo id faucibus. Cras gravida posuere nibh eleifend cursus. Vestibulum eu risus nunc. Nulla at eros et mauris consequat dignissim quis non libero. In arcu sem, dictum ac purus nec, rhoncus eleifend nulla. Phasellus nisl libero, volutpat sed condimentum quis, scelerisque mattis enim.

Quisque consectetur volutpat augue, dapibus posuere ante vulputate laoreet. Nam consequat lorem sit amet massa imperdiet, id mattis purus maximus. Fusce enim libero, hendrerit sed velit id, tempor facilisis tellus. Nunc eget orci id ipsum viverra lobortis eu quis nibh. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Duis ac ligula venenatis, volutpat velit ut, aliquam dolor. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Suspendisse ac purus arcu. In hac habitasse platea dictumst

References

The References are in APA style

- [1] Jan van Eck, N., & van Wezel, M. (2008). Application of reinforcement learning to the game of othello. *Computers & Operations Research*, 35(6), 1999–2017. https://doi.org/10.1016/j.cor.2006.10.004
- [2] van der Ree, M., & Wiering, M. (2013). Reinforcement learning in the game of Othello: Learning against a fixed opponent and learning from self-play. 2013 IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL), 108–115. https://doi.org/10.1109/adprl.2013.6614996
- [3] Kim, K. J., Choi, H., & Cho, S. B. (2007, April). Hybrid of evolution and reinforcement learning for othello players. *In 2007 IEEE Symposium on Computational Intelligence and Games* (pp. 203-209). IEEE. https://ieeexplore.ieee.org/abstract/document/4219044
- [4] Skoulakis, I. E., & Lagoudakis, M. G. (2012, November). Efficient reinforcement learning in adversarial games. *In 2012 IEEE 24th International Conference on Tools with Artificial Intelligence* (Vol. 1, pp. 704-711). IEEE. https://ieeexplore.ieee.org/abstract/document/6495112