Interim Report
G53IDS
Project Title: Applying Evolutionary Algorithms to Pokémon Team Building
4262648 Benjamin Charlton (psybc3)
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1 Introduction

- Talk about aims and objectives
- Overall goal with the project
- Major steps to be taken
- Some of this can be adapted from the project proposal

2 Motivation

- Talk about other AI game playing and how they approach it
- Mention how these approaches assume things like pregame decisions
- Detail the problem
- Again some can be adapted from the project proposal

3 Related Work

- Discuss the Hearthstone deck building GA
- Investigate more works to talk about here (gaming and more general)

4 Description of the Work

- Detail the output specifically
- Discuss building this solution from scratch (besides using relevant APIs outside of the main project), why this is beneficial
- Talk about both the EA and MA and how they will be linked

5 Methodology

5.1 Object Orientated Design and Python

- Easy adaptation
- Conversation from GA to MA
- Commonly used, lots of APIs

5.2 Evolutionary Algorithms

- Choice of GA and MA
- Why this over other AI techniques like ANN and Local Search

5.3   Software Engineering Tools

- Git
- Latex
- Atom
- Unit Tests
- How these tools work together and help with project management and speed up work

6   Design

- Genetic Algorithm
- High level Representation Explanation

7   Implementation

- Language and Platform choices
- Separation of settings
- Low level Representation Explanation
- Validation methods (if made by then)
- Use of the benchmark example

8   Progress

8.1   Project Management

- Discuss bringing Interim Report work forward
- Adding in of a benchmark function to test the GA Structure
- Review of individual tasks and how long they took
- Revised work plan, including changes to current progress and any prospective changes

8.2   Contributions and Reflections

- Difficulties due to unpredicted work loads in other areas
- How moving forward aspects and adding additional tasks helped and hindered
- Current achievements in the project
- Personal Reflections

9   Appendix

References

[1] Griffin McElroy. Becoming the very best: The pokemon world championships. https://www.polygon.com/2013/7/20/4539528/becoming-the-very-best-the-pokemon-world-championships, July 2013.