Snake-AI
Project Documentation

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1 How we started

This chapter describes how we started with the project.

As we all know the hardest part of a journey is the start. But once started it is a easy on going. It is like the starting impact on the first domino stone, which brings the whole project in rolling.
As usual in any task of life we need to understand what the problem is and which requirements are necessary to solve the problem. To do so, we read the description from the organizers carefully. In addition to that we watched a few videos about our topic to get a better understanding.
After gaining knowledge about the problem we felt ready to start working with the Snake-AI project provided by the organizers on a GitHub repository. The Project was written in the Java programming language. To get familiar with the project we looked into the UML class diagram. Besides that we followed a YouTube Tutorial which was also provided by the organizers, where we implemented our first working version. A detailed introduction and our results will now be presented.

2 Introduction

to-do

2.1 General Topic

to-do

2.2 Similar problems in practice (References every time, look for actual ones)

to-do

3 Team Work

to-do

3.1 Work Participation

to-do

3.2 work structure (communication, decisions, bug tracking, repository, engineering, ...)

to-do

3.3 ideas (brainstorming)

to-do

4 Problem Description

to-do

4.1 Formal description: definitions, examples, ...

to-do

5 Related Work

to-do

5.1 Related Algorithms, Applications

to-do

!for example: Fractals, Data Generation, Games, Evolutionary Algorithms (Genetic Algortihms; Collective Intelligence like Particle Swarm Optimization - PSO, Ant Colony Optimizaton - ACO; Evolutionary Multiobjective Optimization, ...)

6 Proposed Approaches

to-do

6.1 Input/Output Format, Benchmarks (Generation, Examples)

to-do

6.2 Algorithms in Pseudocode

to-do

7 Implementation Details

to-do

7.1 Application Structure

to-do

7.2 GUI Details

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to-do

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to-do

8 Experimental Results and Statistical Tests

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8.1 Simulations (Play with the Parameters!)

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to-do

8.3 Tables: input data details, results of different algorithms

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9 Conclusions and Future Work

to-do

9.1 How the team work went

to-do

9.2 What we have learned

to-do

9.3 Ideas for the future development of your application, new algorithms

to-do