**Initial approach**

* Copy paper, with small set of operators
* [file:///C:/Users/Miguel/Downloads/Application%20of%20Genetic%20Programming%20to%20the%20Snake%20Game%20-%20Artificial%20Intelligence%20-%20Articles%20-%20Articles%20-%20GameDev.net.html#](file:///C:/Users/Miguel/Downloads/Application%20of%20Genetic%20Programming%20to%20the%20Snake%20Game%20-%20Artificial%20Intelligence%20-%20Articles%20-%20Articles%20-%20GameDev.net.html)
* Given the lack of citation, of the paper (potentially related to the scale of the research effort in this area), it is difficult to ascertain the reliability of the paper
  + Presented results are excellent compared to replicated results
    - Either because methodology isn’t sufficiently explained(no details of mating procedure, generation algorithm for individuals, or mutation algorithm other than mutation and crossover rate)
    - They ran the algorithm with far more computation requirements than I am (1000 population, 500 generations)
    - Presented statistics do not display the reliability of the setup, only the best performance: (limited statistics display the success rate of the algorithms): difficult to identify statistical significance of advanced set
  + Presented results are still sub-optimal: some improvements possible, potentially requiring more operators

**Modifications/Assumptions done to implement the first algorithm**

* Fitness function remains the same is inversed from a minimisation to maximisation for improved legibility within the context

**Points to talk about**

* Improving execution time in python (deque, food placement)