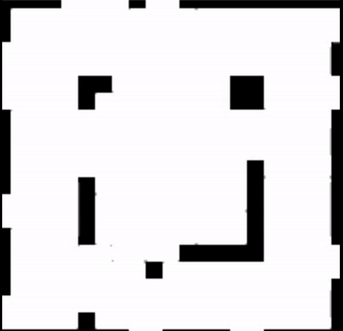
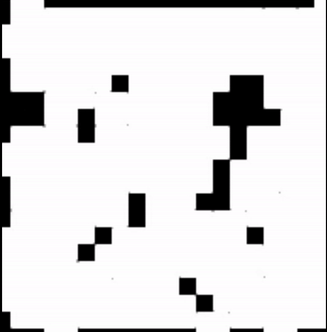
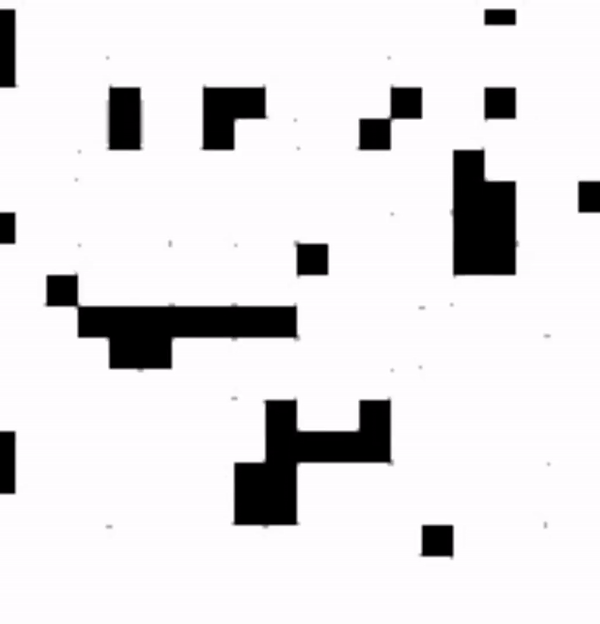
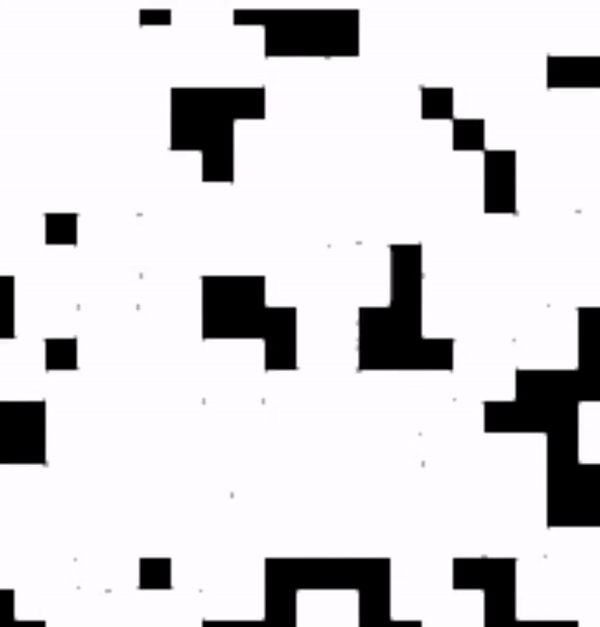
**Artificial Intelligence HW1 Report**





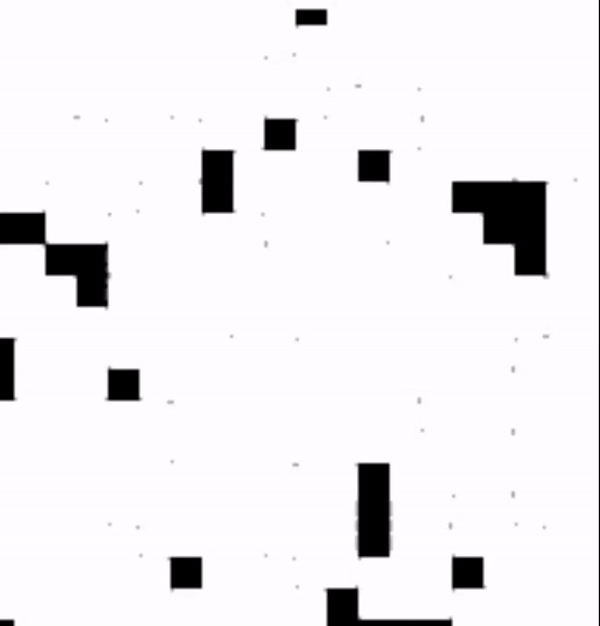




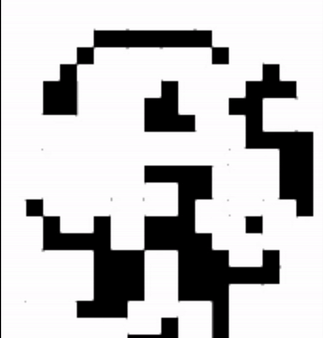
A black squares on a white background

Description automatically generated

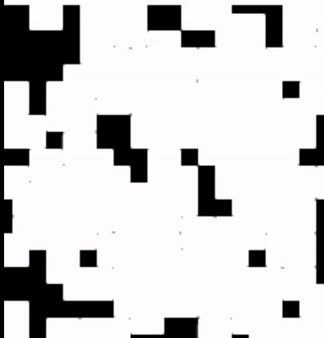




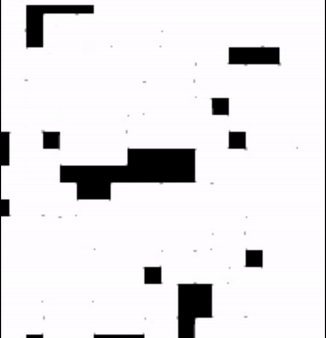




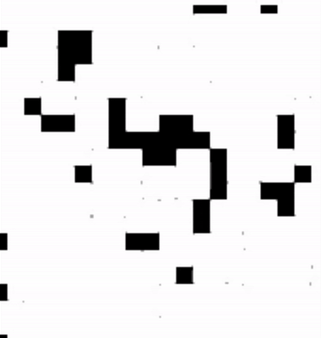














**Analysis of Hyperparameters** 1) Dinosaur.png

A graph of a number of people

Description automatically generated

2) Energy.png

A graph of a number of people

Description automatically generatedA black and white pixelated symbol

Description automatically generated

**Our Feedback:**

GIF illustrating the evolving process will be sent as part of the demonstration. The population's evolution over generations for a particular image will be shown in the GIF, demonstrating how the genetic algorithm continuously improves the solution. Due to time constraints, the GIF will be sped up, focusing on the final moments of the evolution process to highlight the most significant changes.

Furthermore, there are plans for future improvements, even if the current implementation is restricted to producing images with a resolution of 20 by 20 pixels. Expanding the algorithm's capacity to handle photos of any size is one of the main enhancements. With this improvement, the evolutionary algorithm should become more adaptable and useful for a larger variety of image production jobs.