CONWAY'S GAME OF LIFE

A 3D VISUALIZATION OF CONWAY'S GAME OF LIFE OVER GENERATIONS

01

INSTRUCTIONS

UNDERSTANDING CONWAY'S GAME OF LIFE

INSTRUCTIONS

The game starts with some cells which may be alive or dead, the next generation is generated based on these rules.

- ➔ Any live cell with fewer than two live neighbors dies as if caused by underpopulation.
- ➔ Any live cell with two or three live neighbors lives on to the next generation.
- ➔ Any live cell with more than three live neighbors dies, as if by overpopulation.
- ➔ Any dead cell with exactly three live neighbors becomes a live cell, as if by reproduction.

02

THE MISSION

UNDERSTANDING THE IDEA

THE IDEA

Extending Conway's game of life in 3 dimensions, to represent it's evolution through each generation with a sculpture.

Thus visualizing an abstract concept in a natural setting to appreciate the beauty in simple mathematical patterns.

03

GADGET TIME

EXPLORING THE TECH STACK USED

TECHNOLOGIES USED

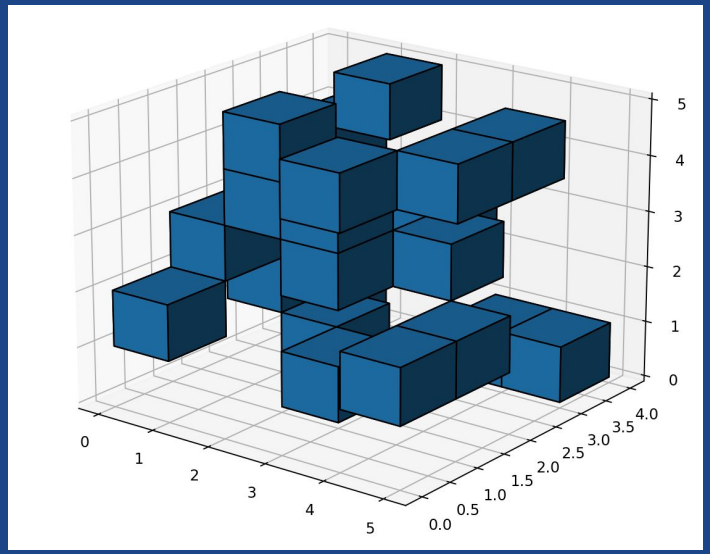
PYTHON

Python API for blender is used to find the solution for the game of life matrix.

BLENDER

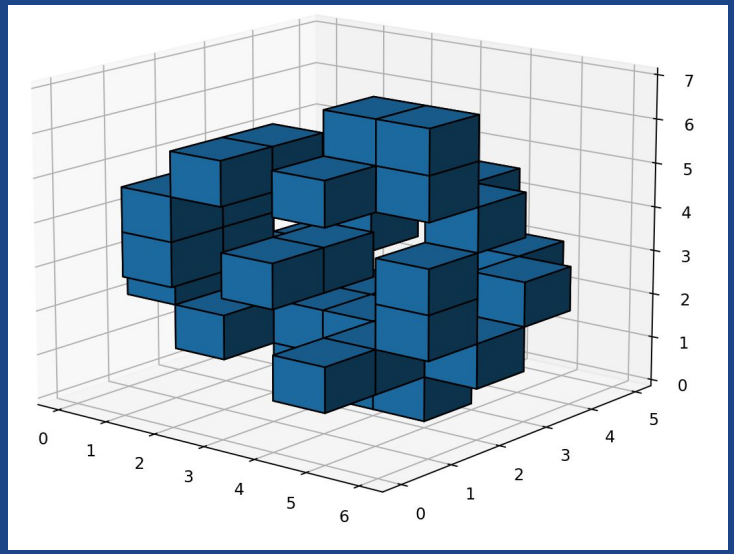
The generated python model is textured and further sculpted using Blender tool and animated to video

PYTHON GENERATED FIGURES



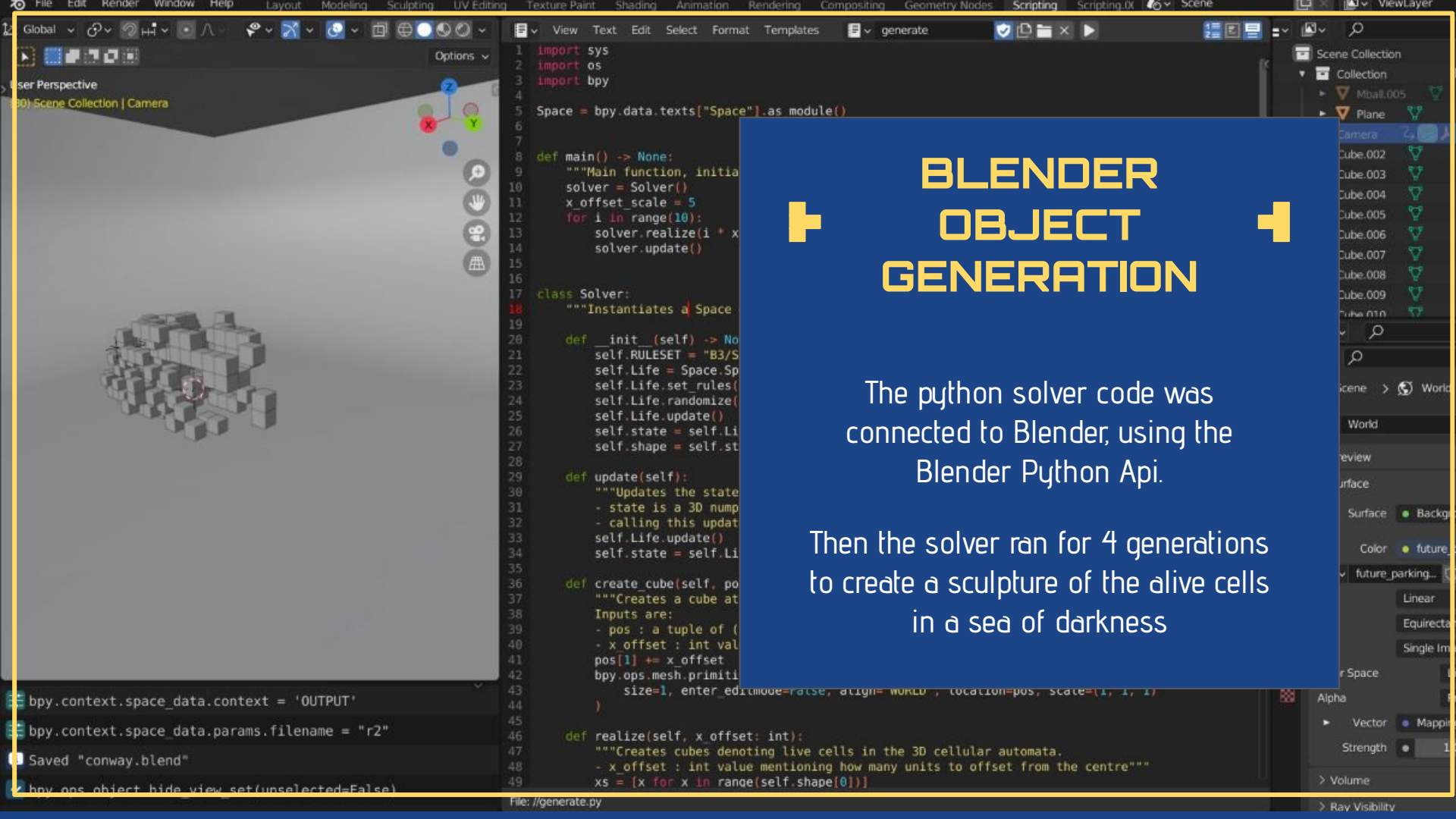
STARTING STATE

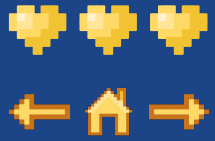
A randomly generated starting state of the game of life grid



NEXT GENERATION

Based on the defined rules the next generation is generated

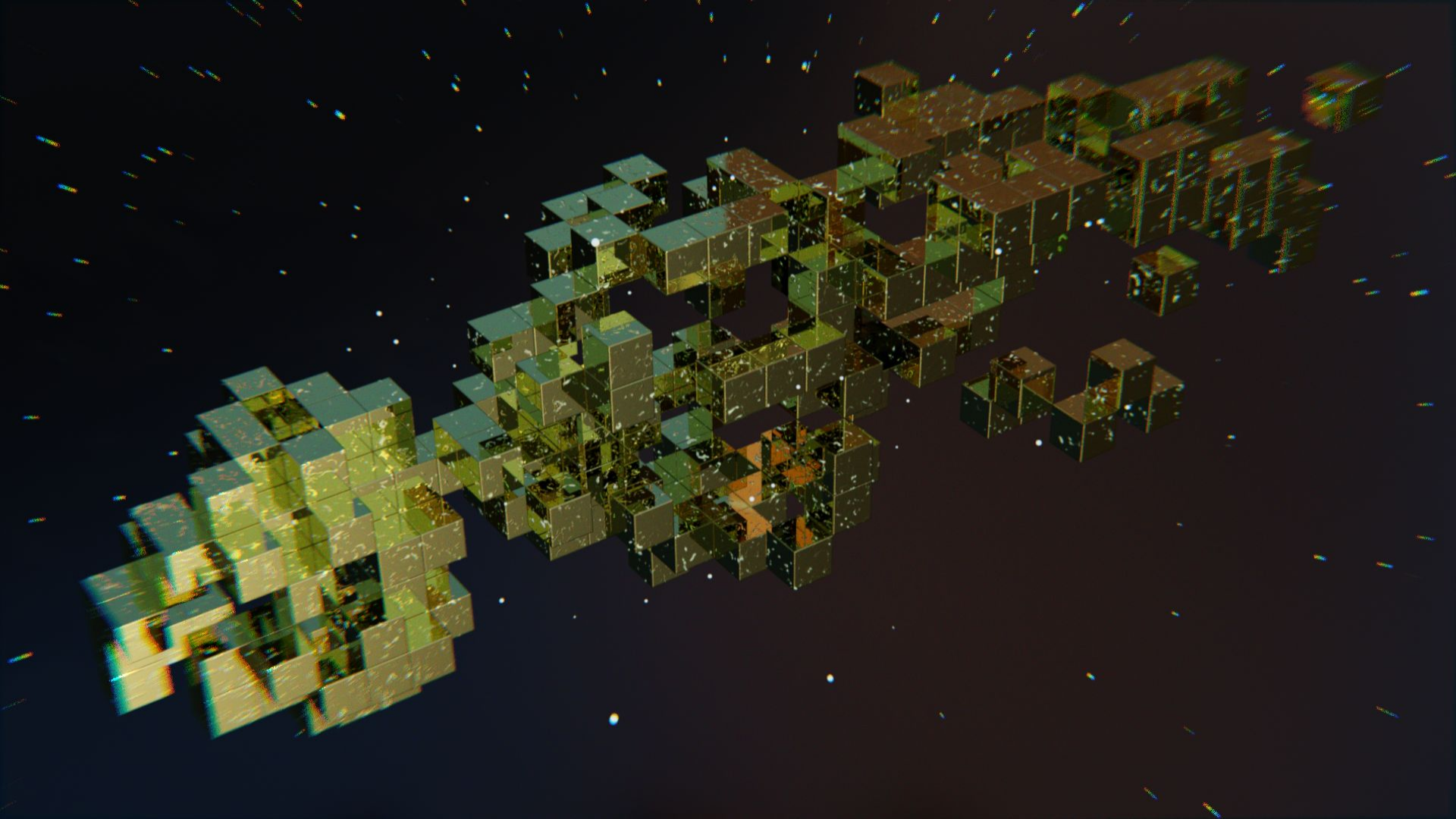

BLENDER OBJECT GENERATION
The python solver code was connected to Blender, using the Blender Python Api.
Then the solver ran for 4 generations to create a sculpture of the alive cells in a sea of darkness



04

THE ENDGAME

THE RESULTS



THANK YOU FOR PLAYING !