Test done 2025_06_26 at 16_48_39

Number of simulation done : 5. The window time of the simulation is 10

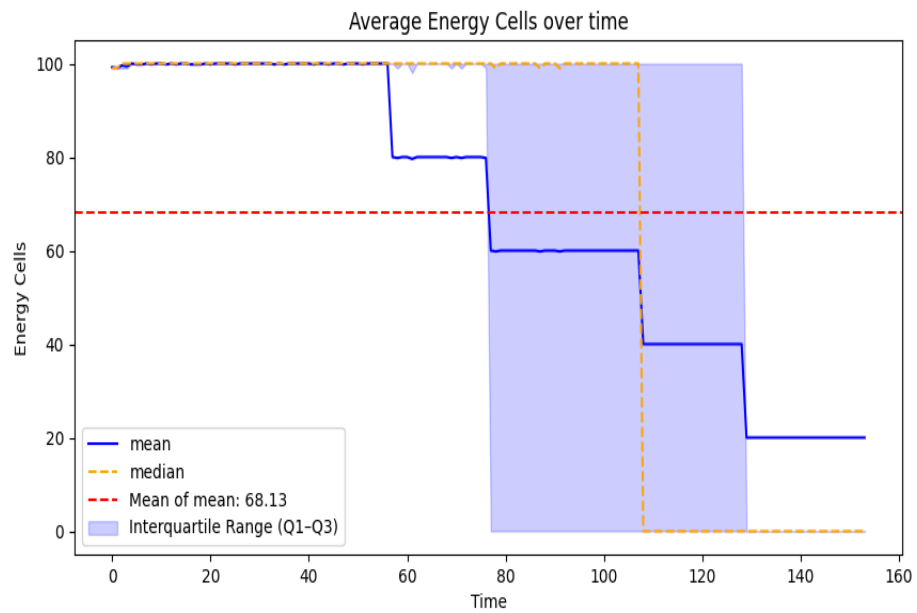Initial condition
Size : 100
I_Energy : 120
I_Age : 100
I_Maturity : 20
I_Distr : First Quad
Radius : 8
Active : 100
C_Min : 15
C_Max : 150
C_Regen : 5
C_Distr : Uniform
Height : 100
Width : 100
P_Distr : Uniform
Move : 1
Eat : 2
Rest : 0
Reproduce : 5
N_Simulations : 5
Seed : 100
Energy Needed : 0.6
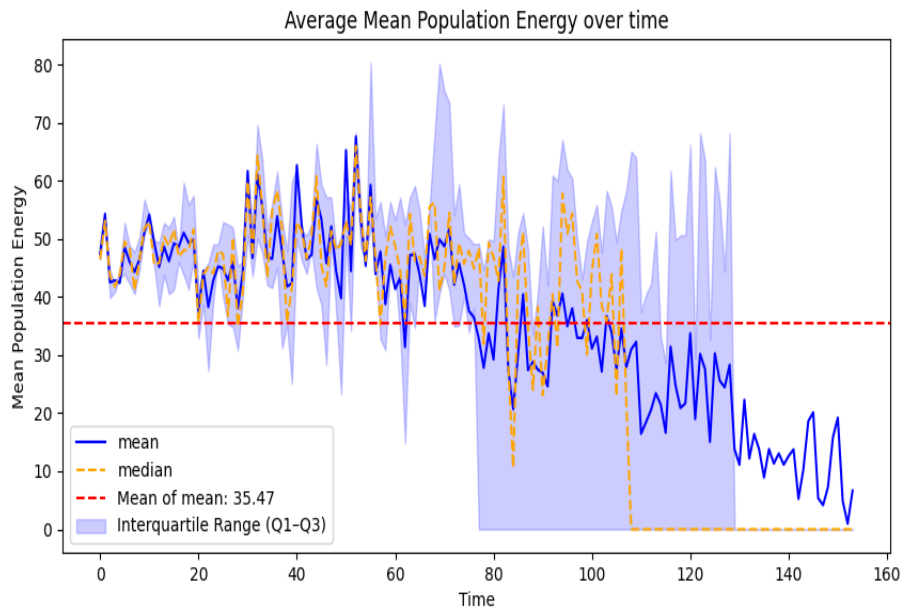Extra Energy : 0.2
Energy Requeste : 0.5
Mutation Rate : 0.1

Horizons over simulations
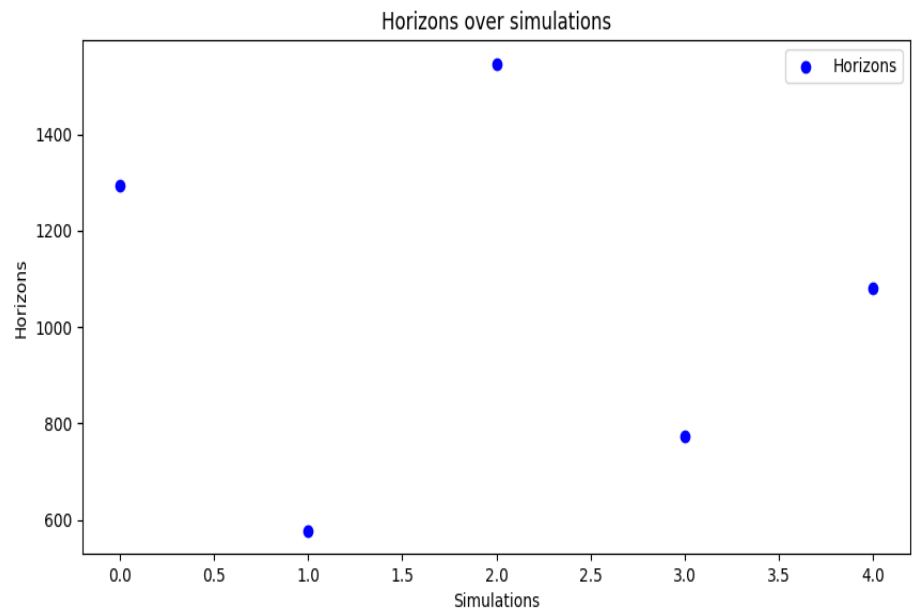
Mean : 1054.4
Variance : 121164.23999999999

Average Population over time
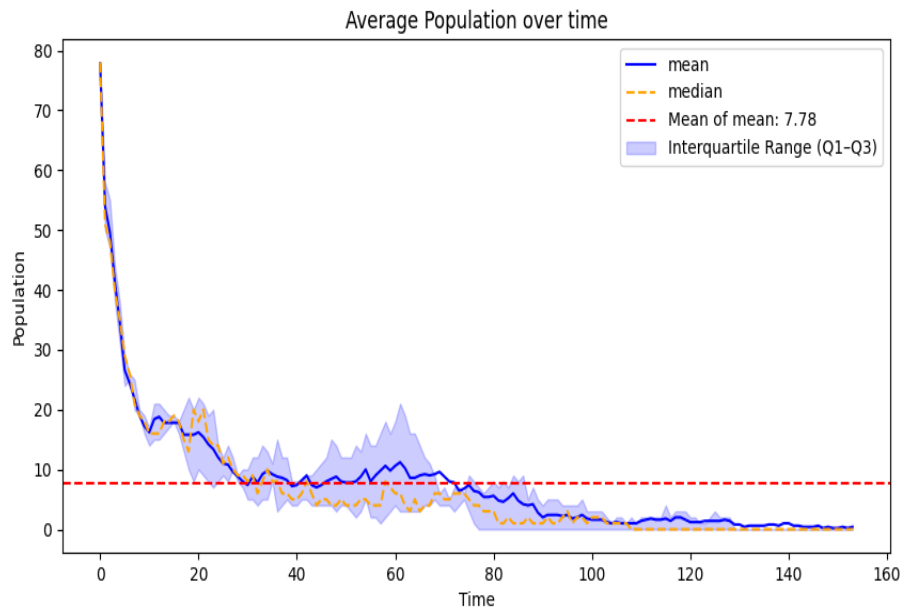
Mean : 7.783116883116882
Variance : 102.76361106426043

Average Energy Cells over time

Mean : 68.13116883116884
Variance : 888.9181194130543

Average Mean Population Energy over time

Mean : 35.469196848507295
Variance : 217.34028395343884

Average Mean Population Age over time
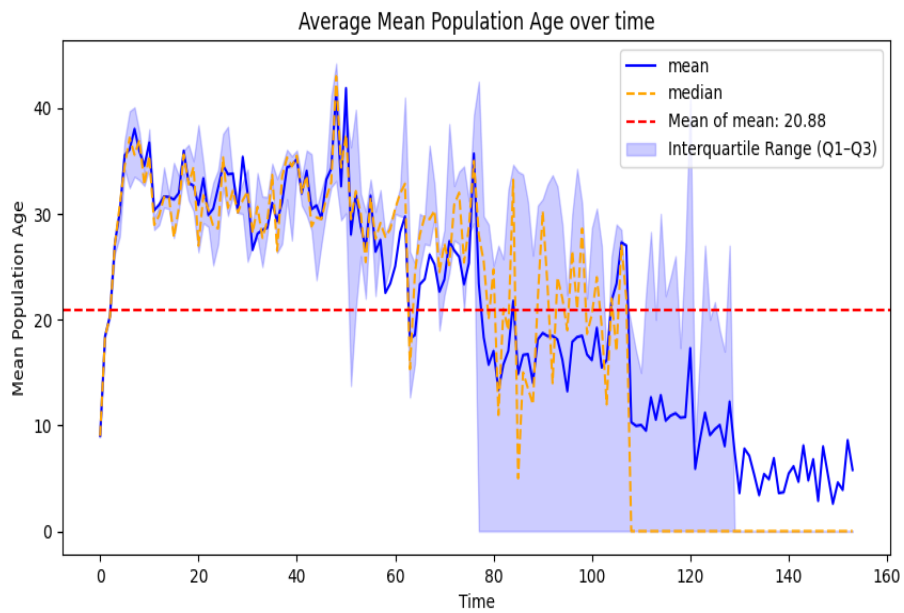
Mean : 20.876768529048263
Variance : 112.1635167677911

Average Mean World Energy over time
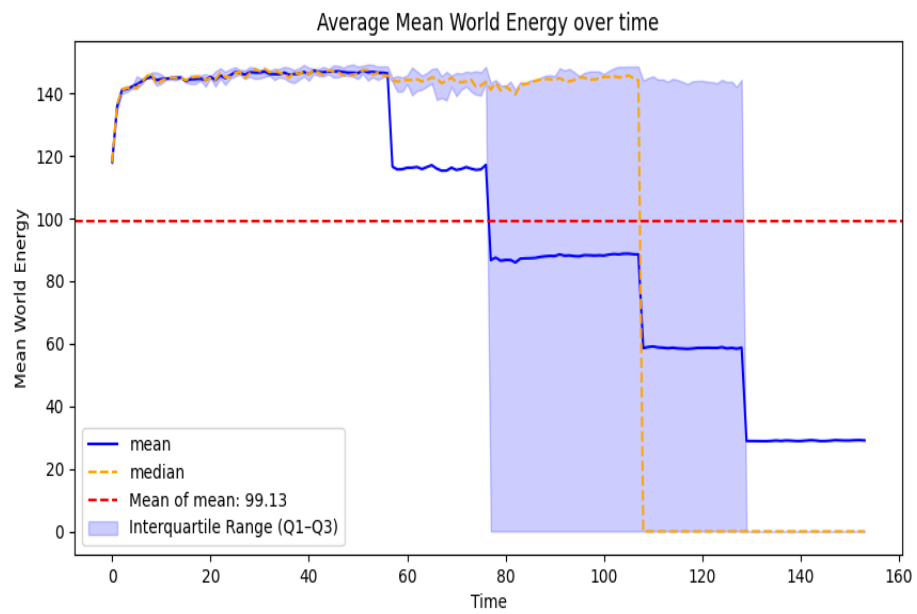
Mean : 99.12566499528216
Variance : 1870.6795837200027

Average Different Heritage over time
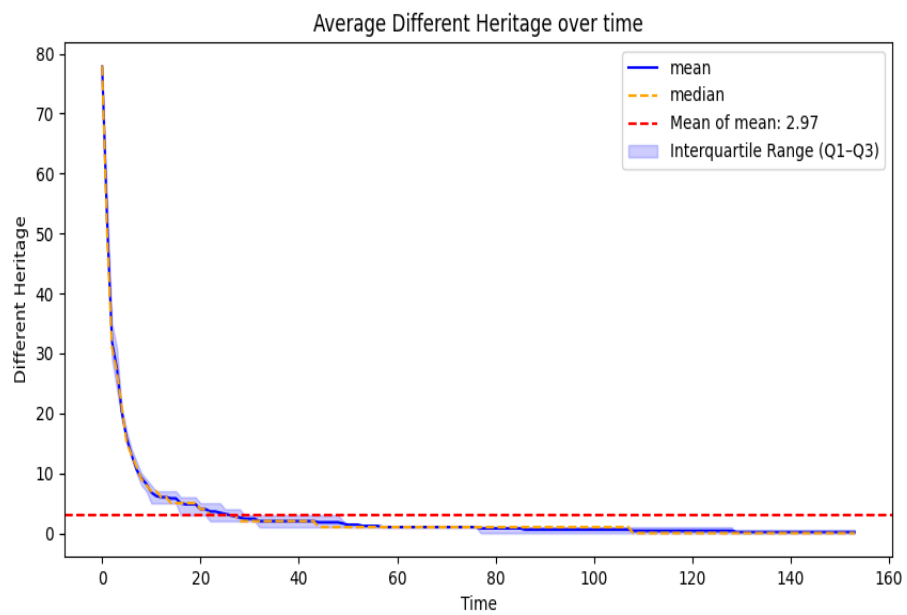
Mean : 2.97012987012987
Variance : 70.4606662169

Average Selfishness over time
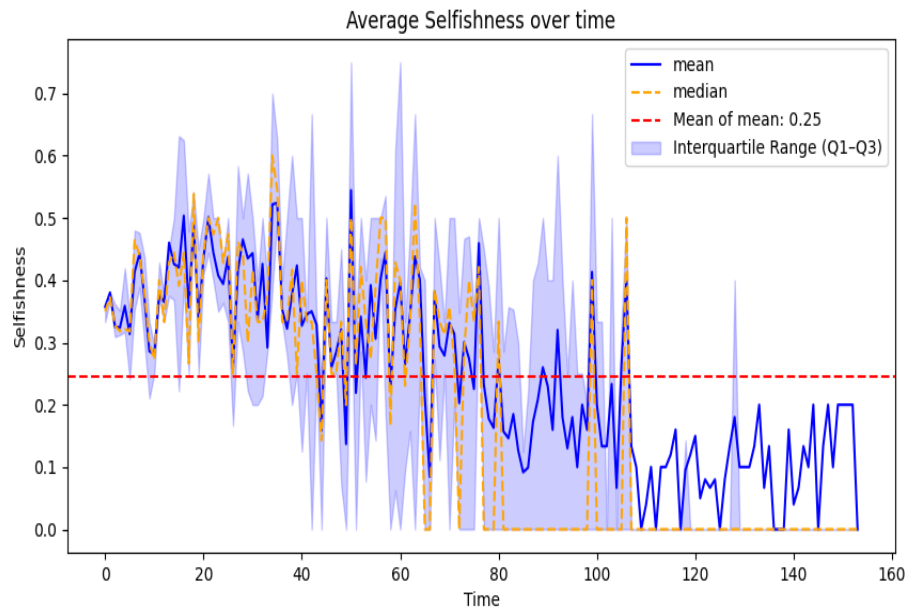
Mean : 0.24577864711009662
Variance : 0.019829781719099514

Average Altruism over time
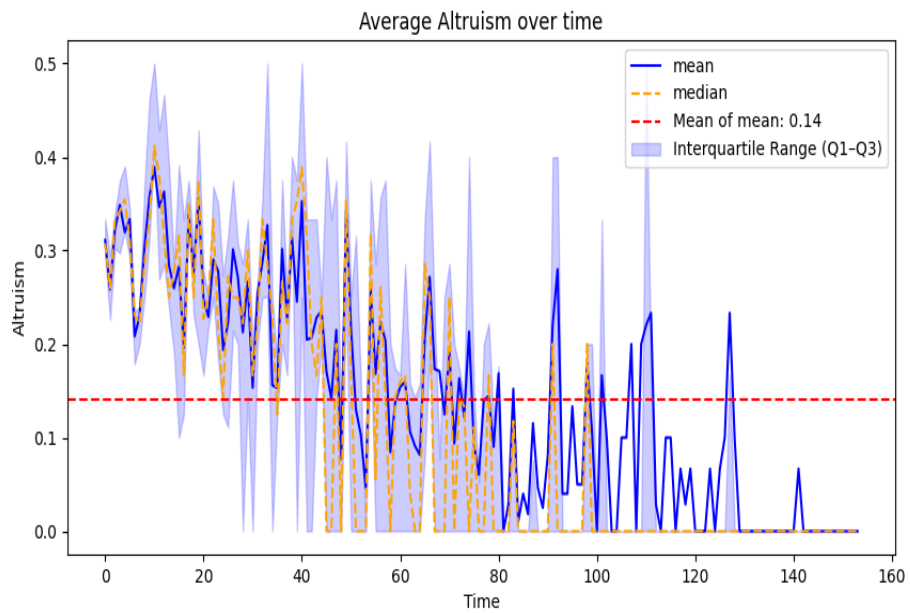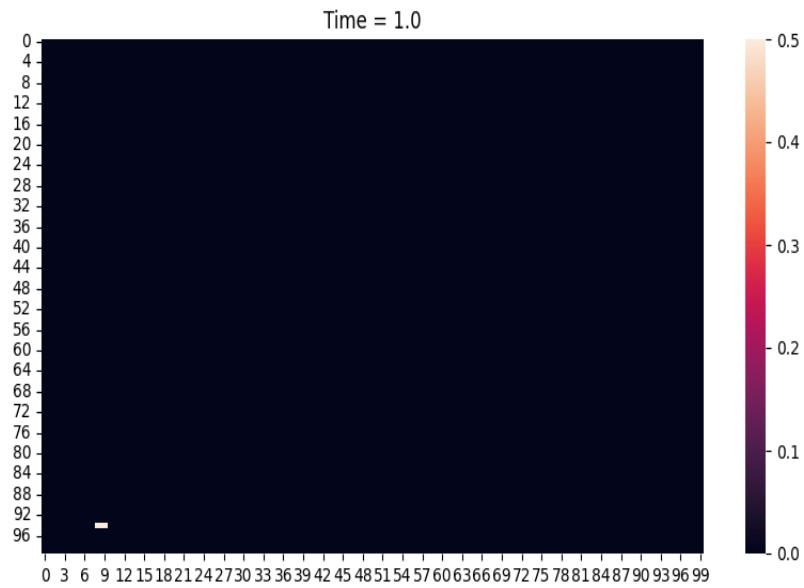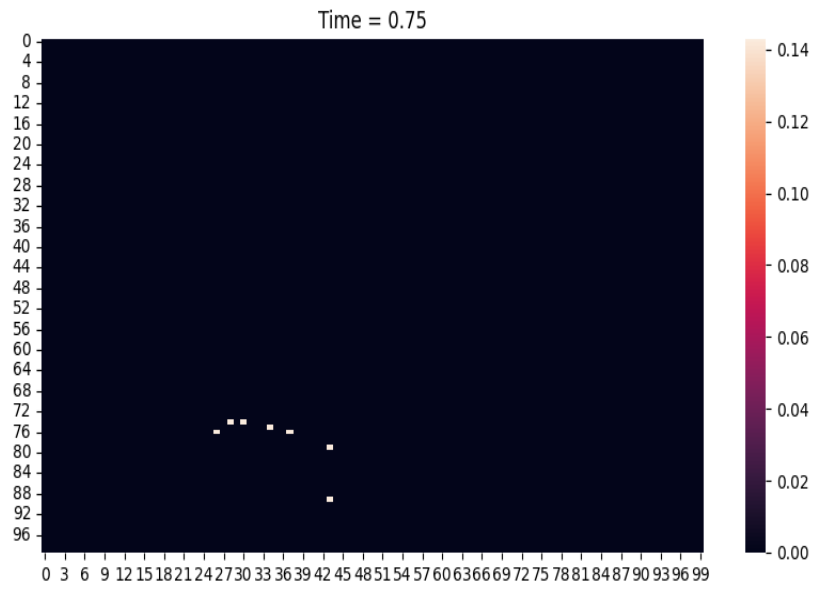
Mean : 0.1412301740495055
Variance : 0.01314325560532905

Average Normality over time
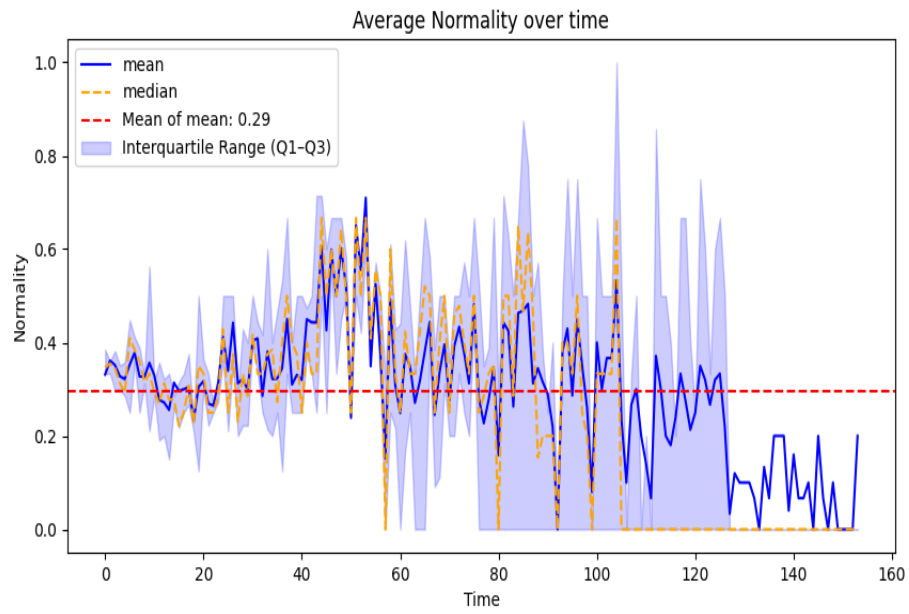
Mean : 0.2948093606585797
Variance : 0.02043709265500682
Spatial Distribution Density Heatmap

Time = 0.25

Time = 0.5

Time = 0.75

Time = 1.0
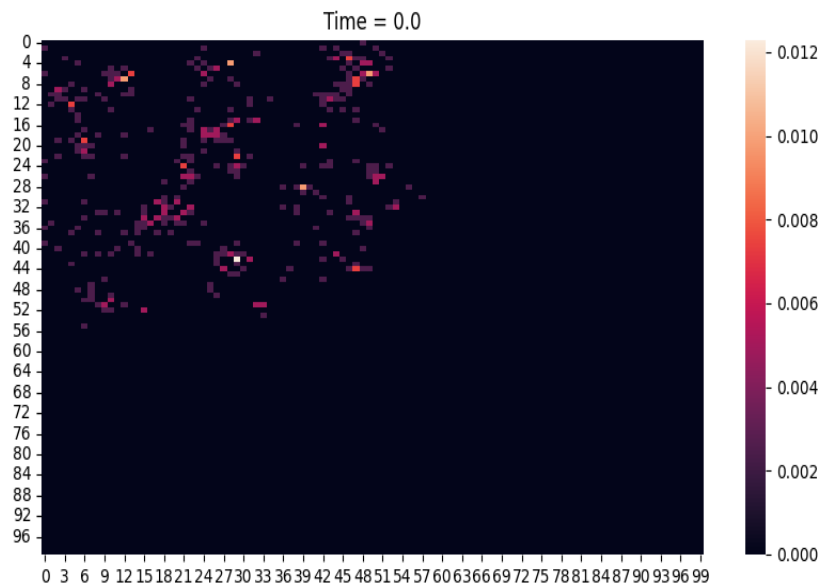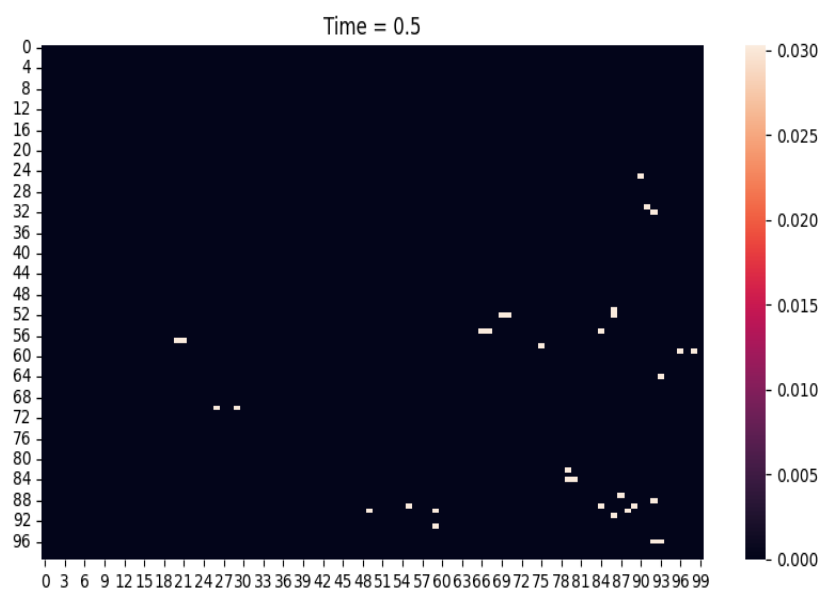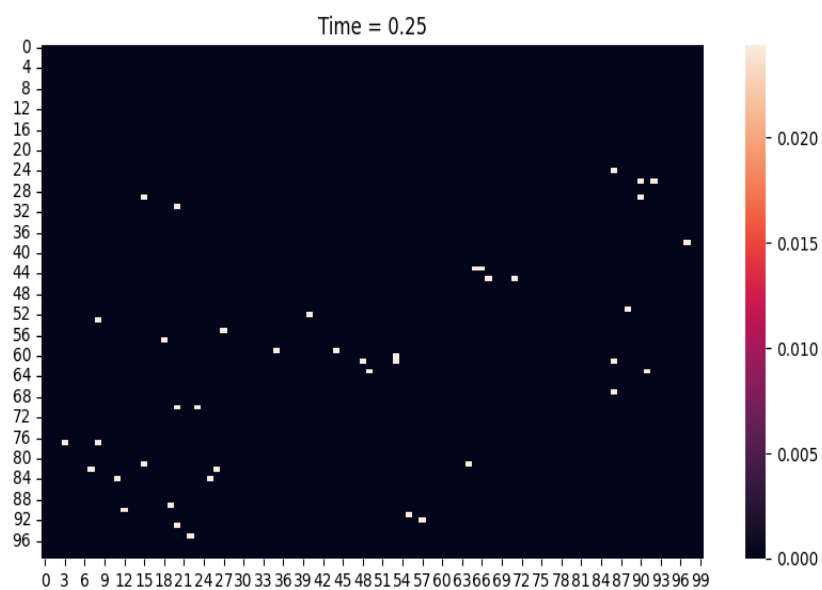
Author : Francesco Bredariol
Year : 2024/2025
This Project is done for the academic purpose of implementing the practical part of the Degree Thesis in Artificial Intelligence and Data Analytics.