# Test done 2025_04_22 at 14_38_54

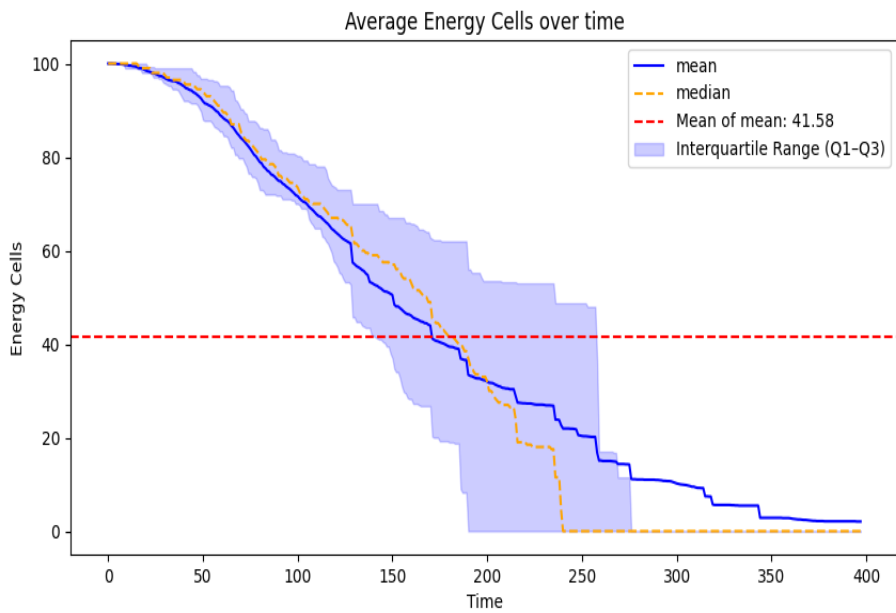Number of simulation done : 20. The window time of the simulation is 10

Initial condition
Size : 100
I_Energy : 100
I_Age : 100
I_Maturity : 18
I_Distr : Uniform
Radius : 4
Active : 100
C_Min : 10
C_Max : 150
C_Regen : 20
C_Distr : 4 Islands no regen
Height : 100
Width : 100
P_Distr : Uniform
Move : 1
Eat : 1
Rest : 0
Reproduce : 15
N_Simulations : 20
Seed : 69
Energy Needed : 0.6
Extra Energy : 0.2
Energy Requeste : 0.5
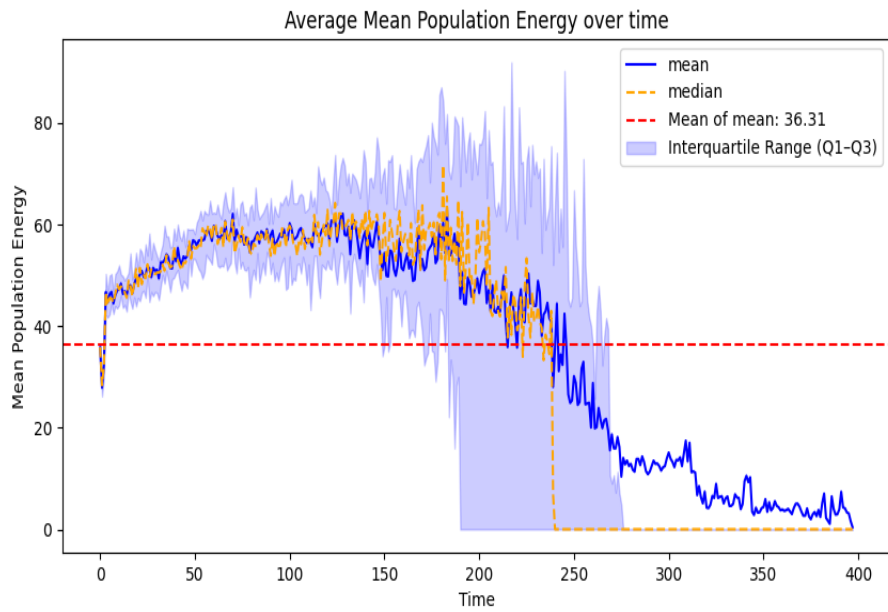Mutation Rate : 0.1

Horizons over simulations
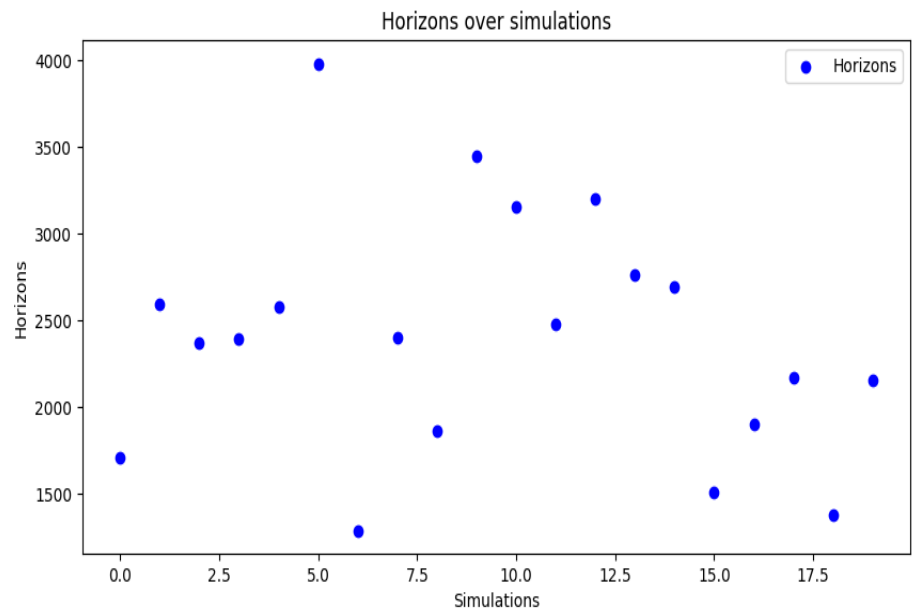
Mean : 2403.15
Variance : 464009.22750000004

Average Population over time
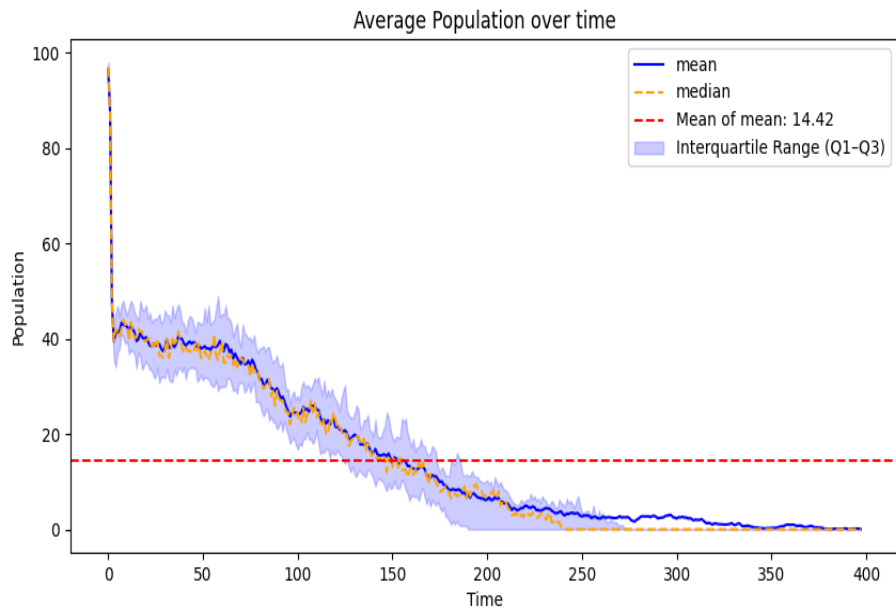
Mean : 14.416457286432161
Variance : 242.2192706150097

Average Energy Cells over time

Mean : 41.57902010050251
Variance : 1126.5018148689426

Average Mean Population Energy over time

Mean : 36.308178014213794
Variance : 464.60316077165305

Average Mean Population Age over time
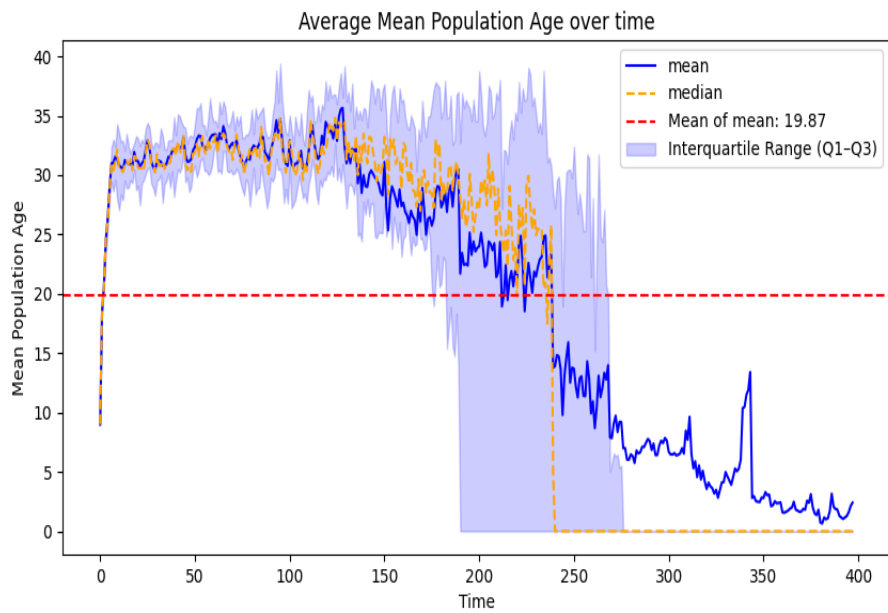
Mean : 19.86544347889948
Variance : 142.7238677389566

Average Mean World Energy over time
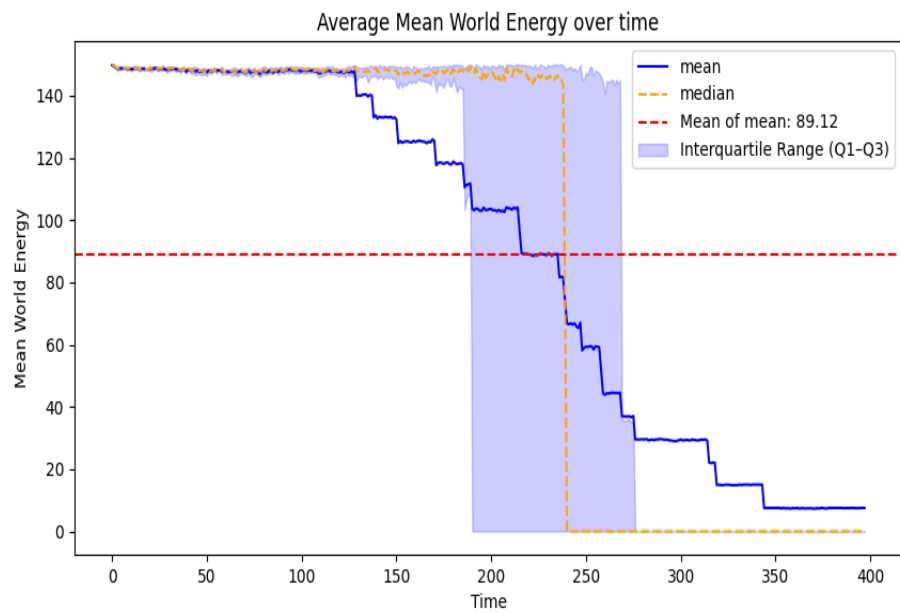
Mean : 89.11673940137183
Variance : 3143.5838034935323

Average Different Heritage over time
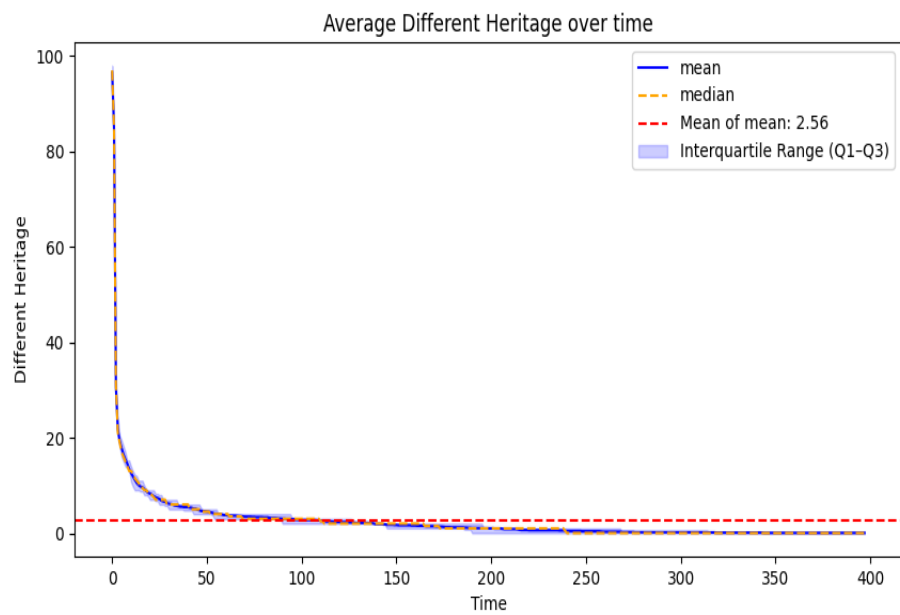
Mean : 2.5634422110552766
Variance : 50.36771503560516

Average Selfishness over time
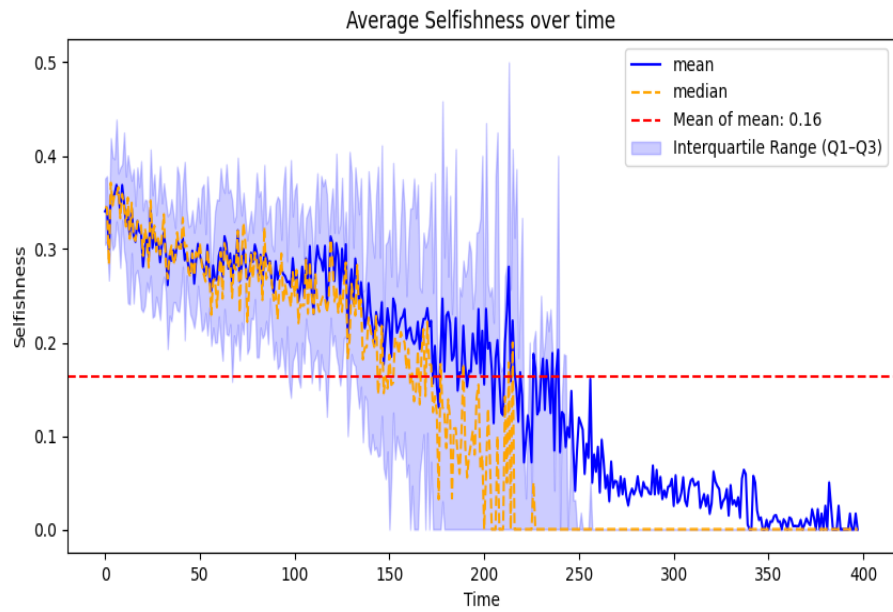
Mean : 0.1633461132248988
Variance : 0.013229297504095778

Average Altruism over time
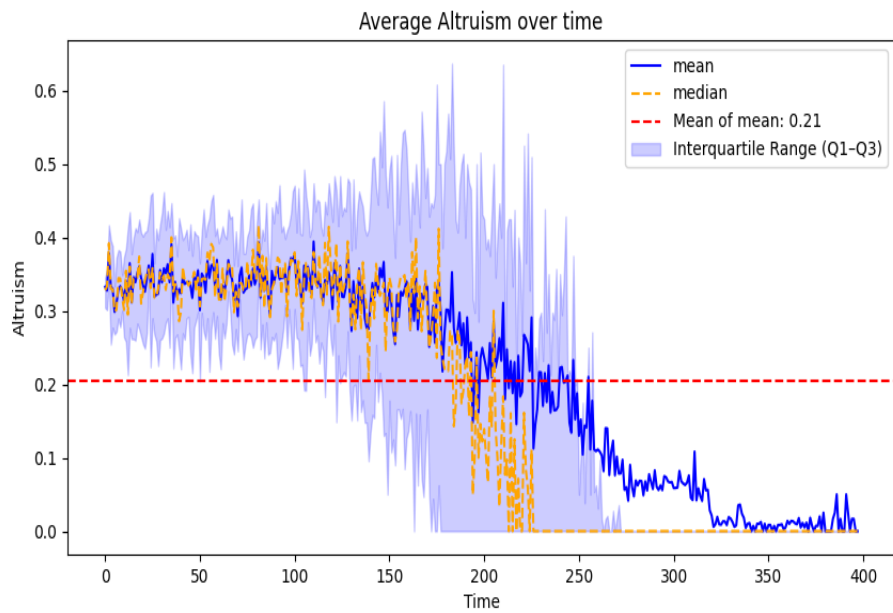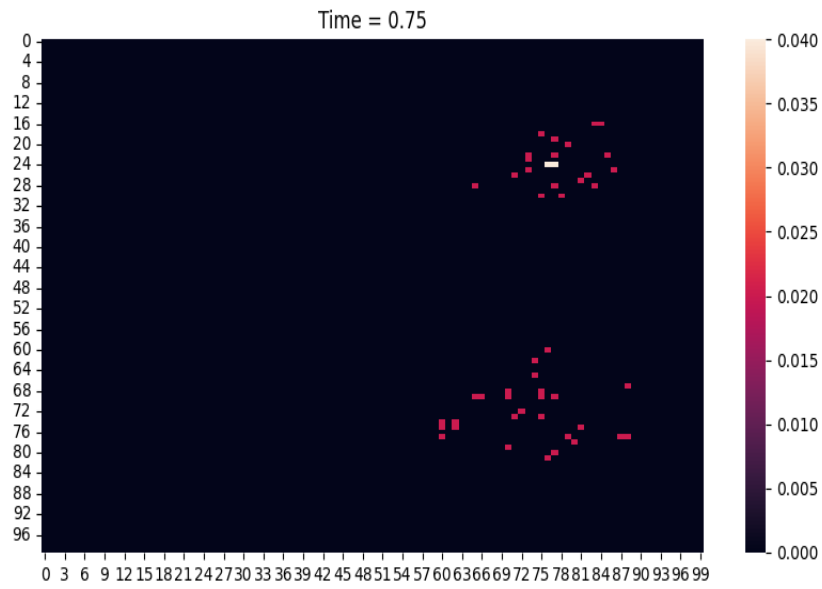
Mean : 0.20541695278589292
Variance : 0.018386458934348055

Average Normality over time
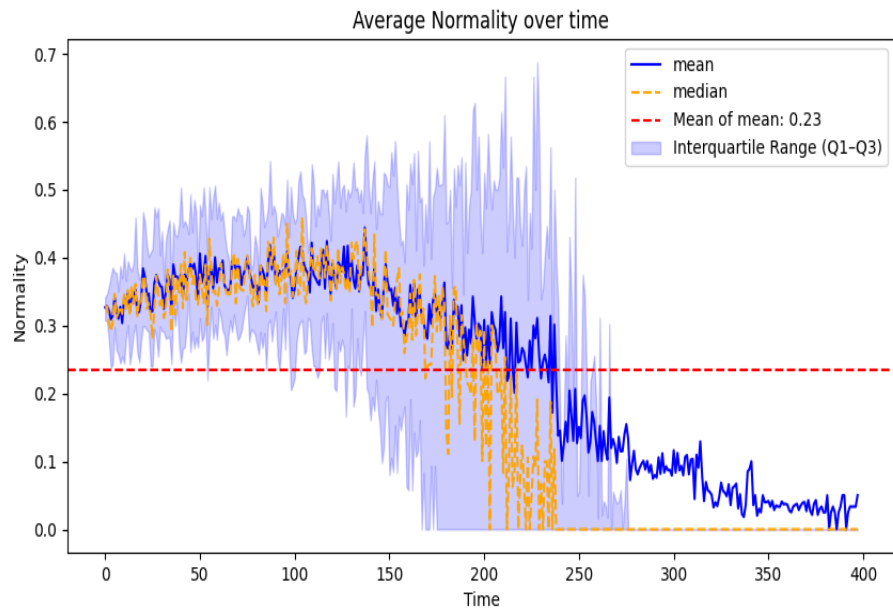
Mean : 0.2338751249439822
Variance : 0.01885191385441813
Spatial Distribution Density Heatmap

Time = 0.0

Time = 0.25

Time = 0.5

Time = 0.75

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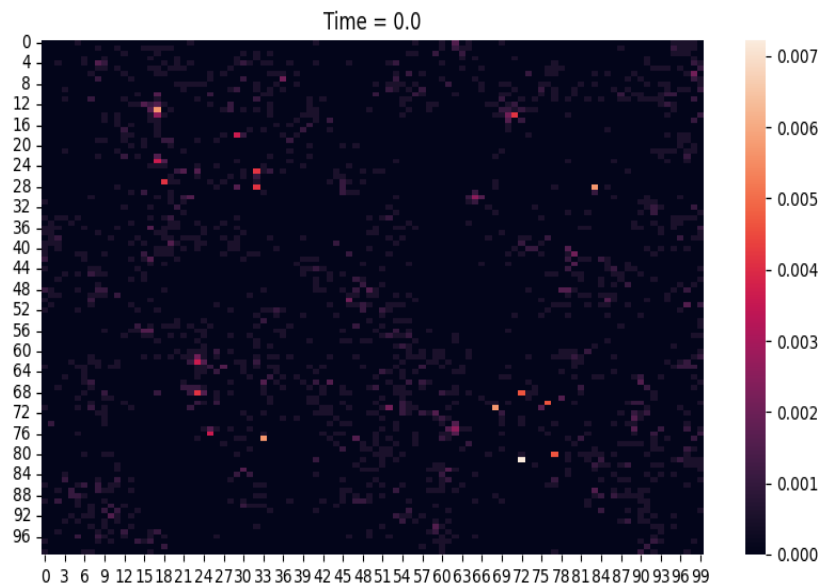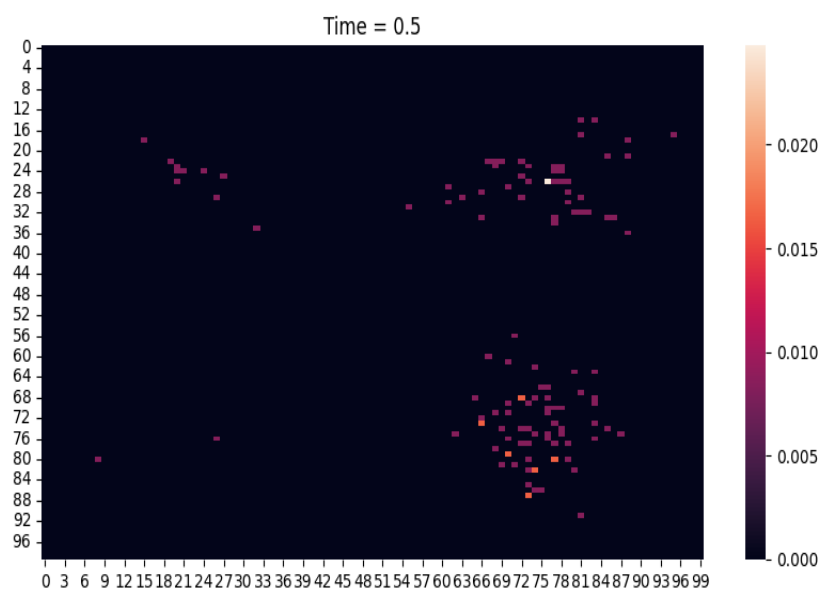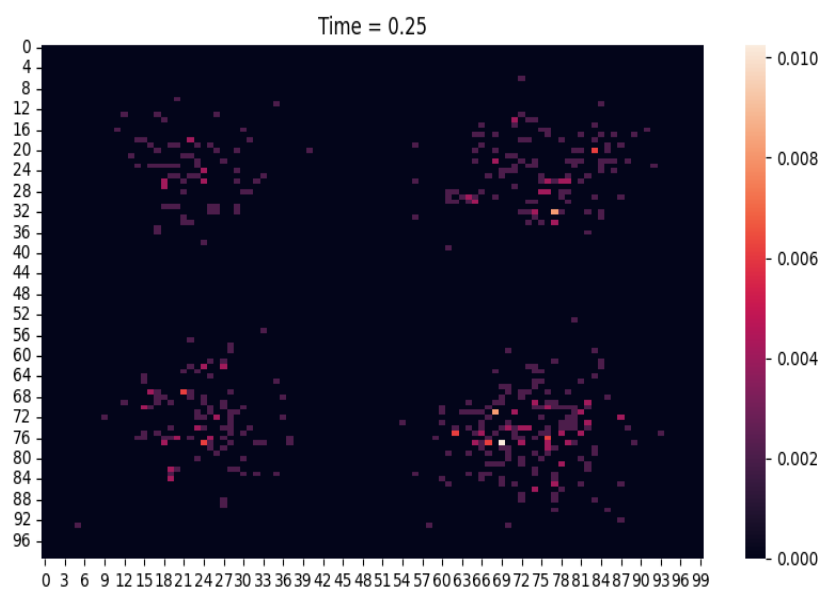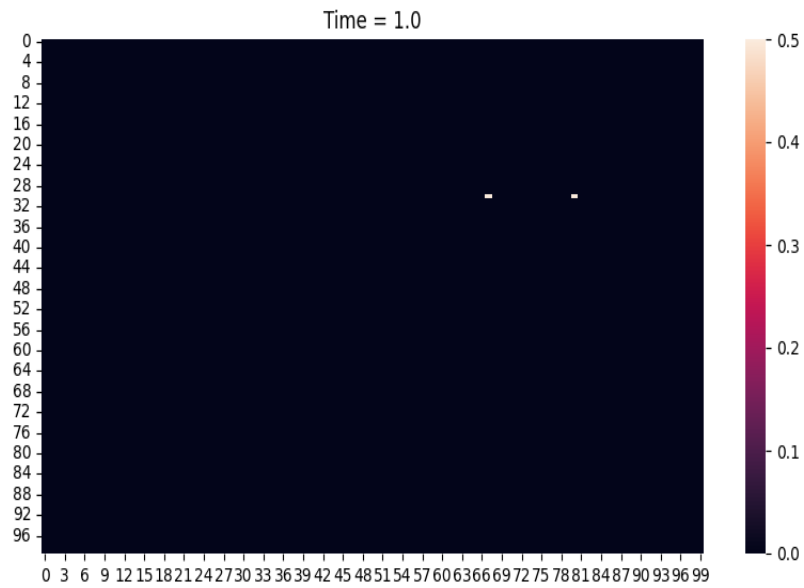
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Year : 2024/2025
This Project is done for the academic purpose of implementing the practical part of the Degree Thesis in Artificial Intelligence and Data Analytics.