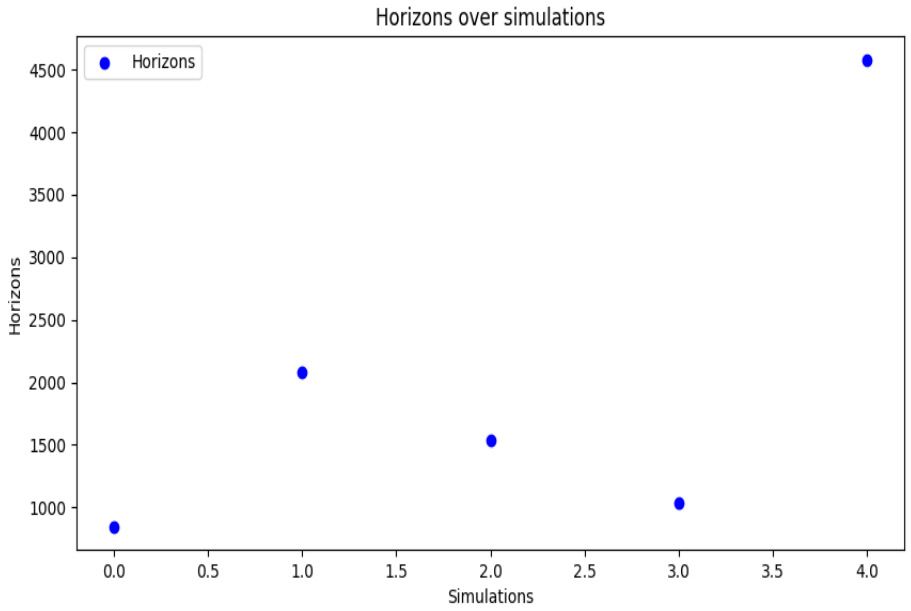
Test done 2025_06_26 at 12_34_31

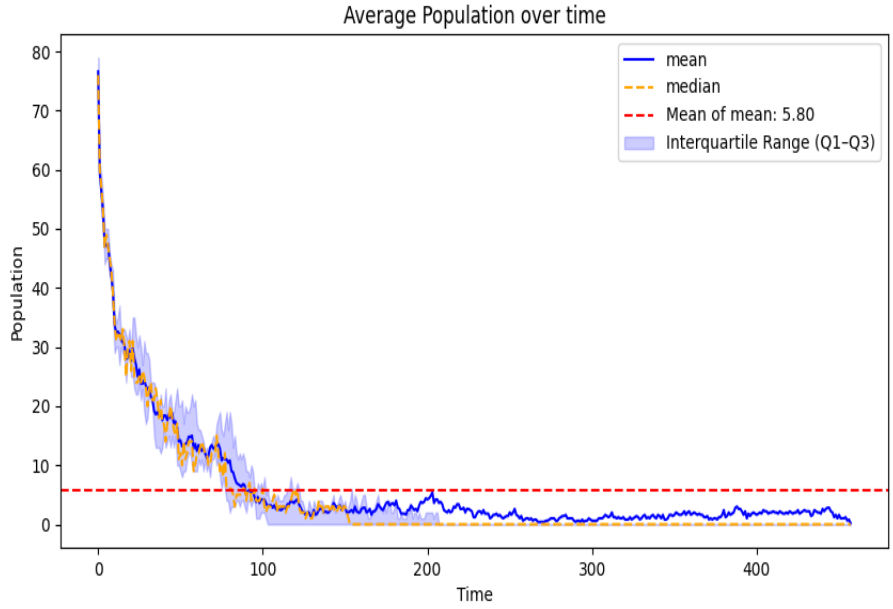
Number of simulation done : 5. The window time of the simulation is 10

Initial condition

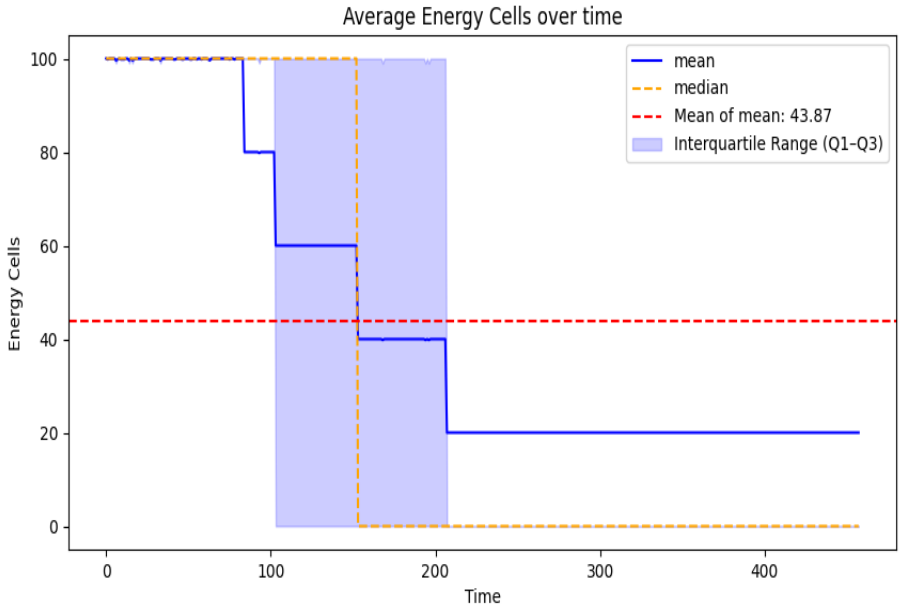
Size : 100
I_Energy : 120
I_Age : 100
I_Maturity : 20
I_Distr : Behaviors Corners
Radius : 4
Active : 100
C_Min : 15
C_Max : 150
C_Regen : 5
C_Distr : 4 Corners
Height : 100
Width : 100
P_Distr : Uniform
Move : 1
Eat : 2
Rest : 0
Reproduce : 5
N_Simulations : 5
Seed : 100
Energy Needed : 0.6
Extra Energy : 0.2
Energy Requeste : 0.5
Mutation Rate : 0.1



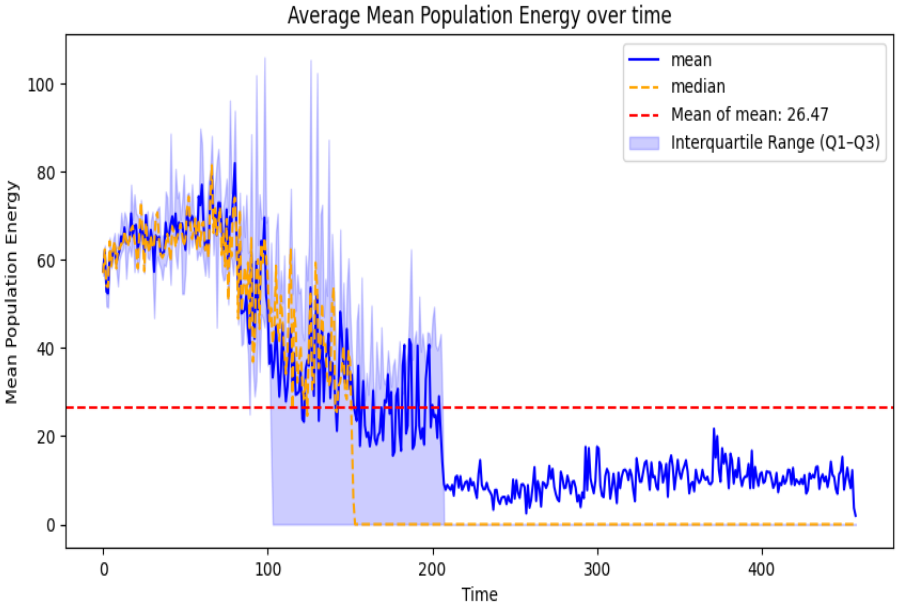
Mean : 2015.0
Variance : 1831226.4



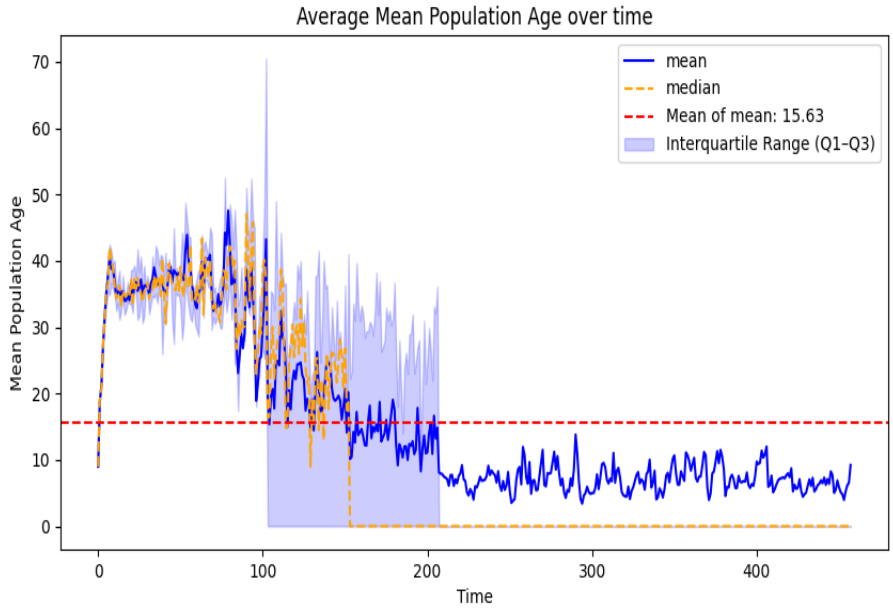
Mean : 5.801310043668122
Variance : 93.49702885147119



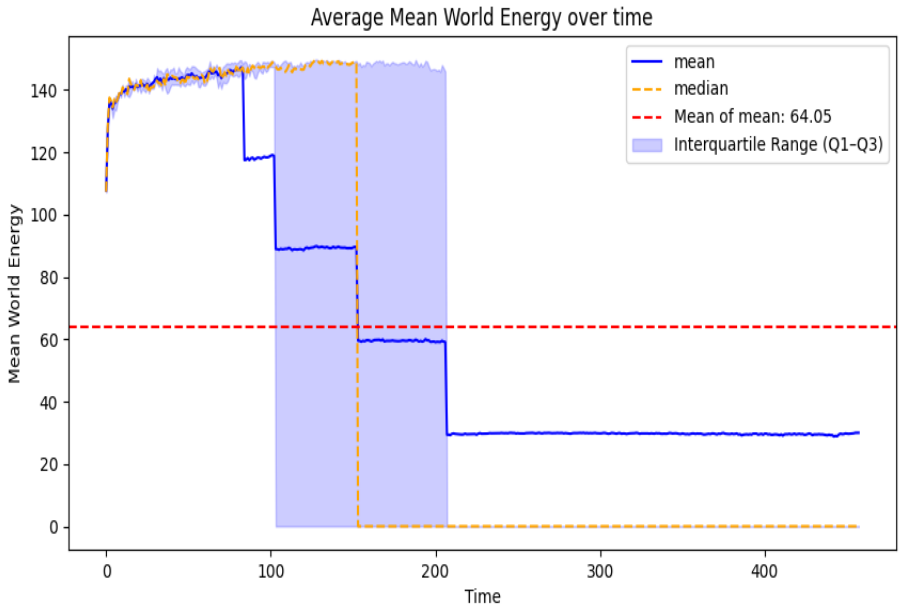
Mean : 43.87161572052401
Variance : 972.9270982628096



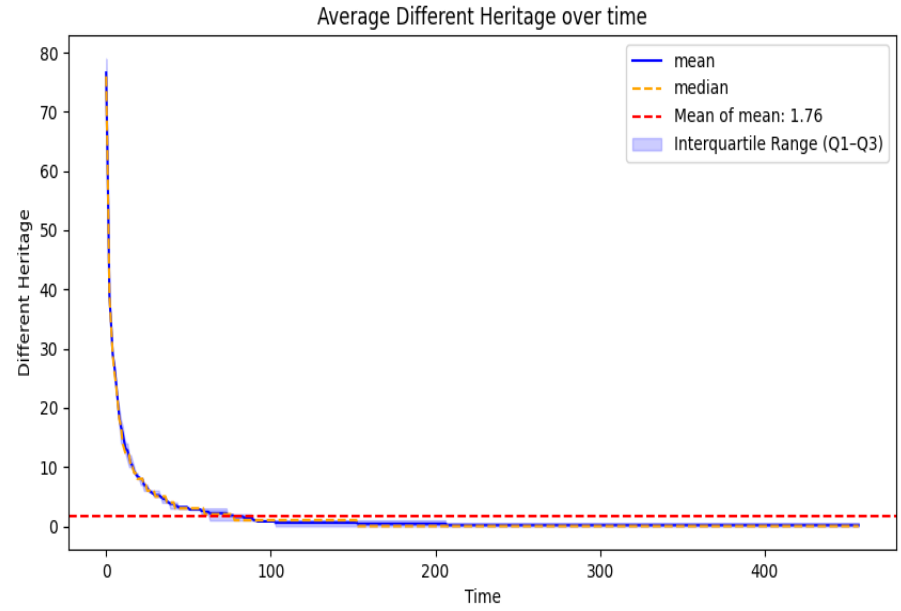
Mean : 26.470140035567702
Variance : 493.97803365232704



Mean : 15.627959761136992
Variance : 139.46307669791722

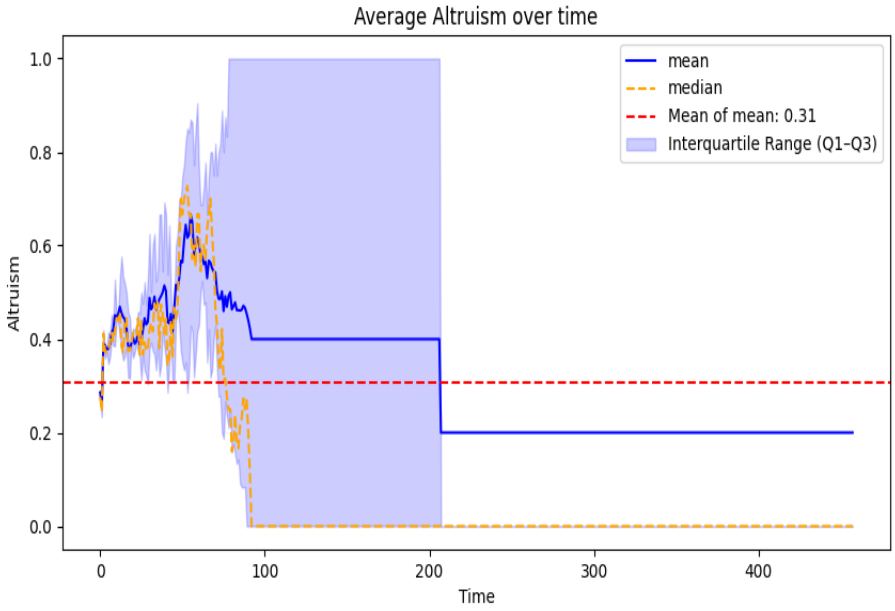


Mean : 64.04679465915717
Variance : 1969.9780490765297

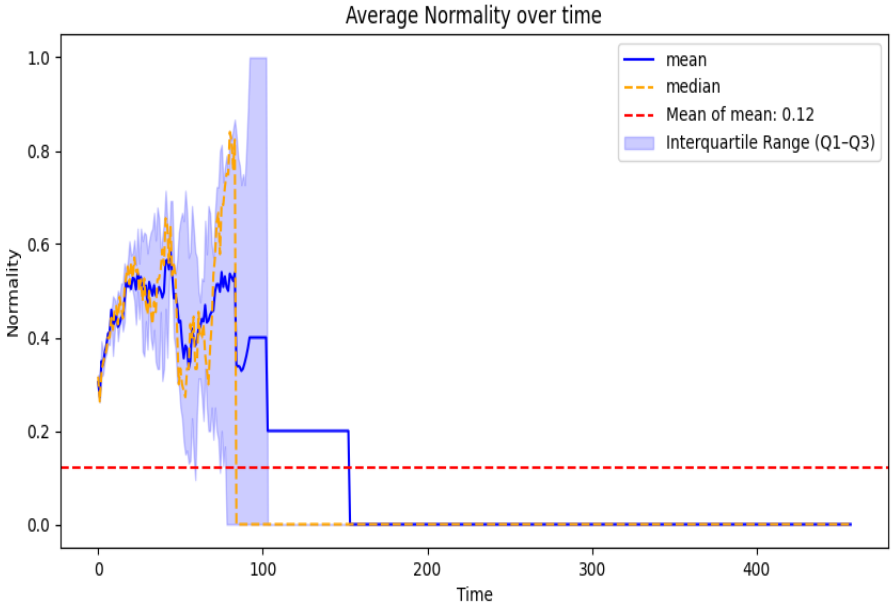


Mean : 1.7567685589519648
Variance : 35.48607864075818

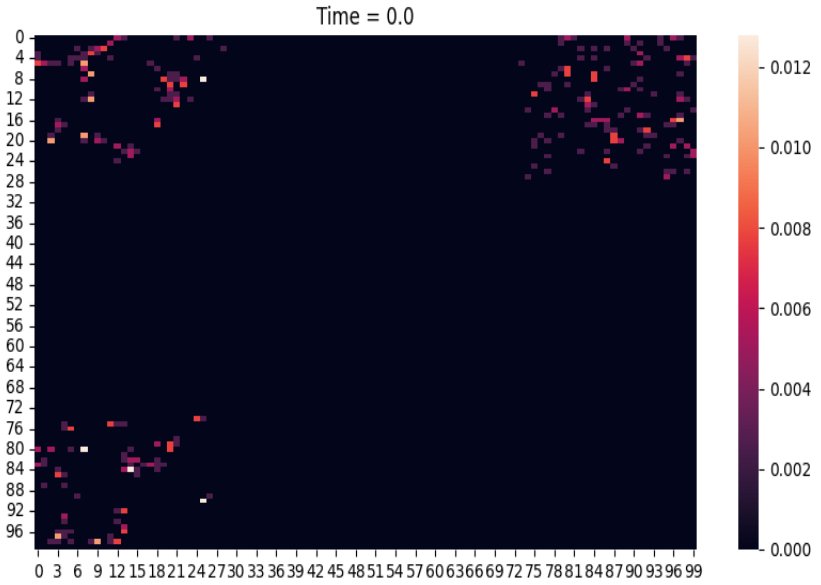
Mean : 0.009782330249403613
Variance : 0.0019177485206829832

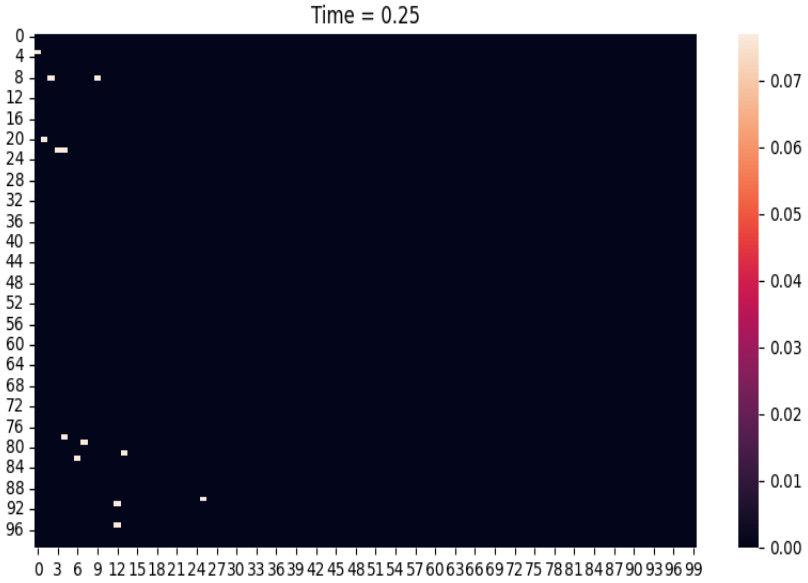


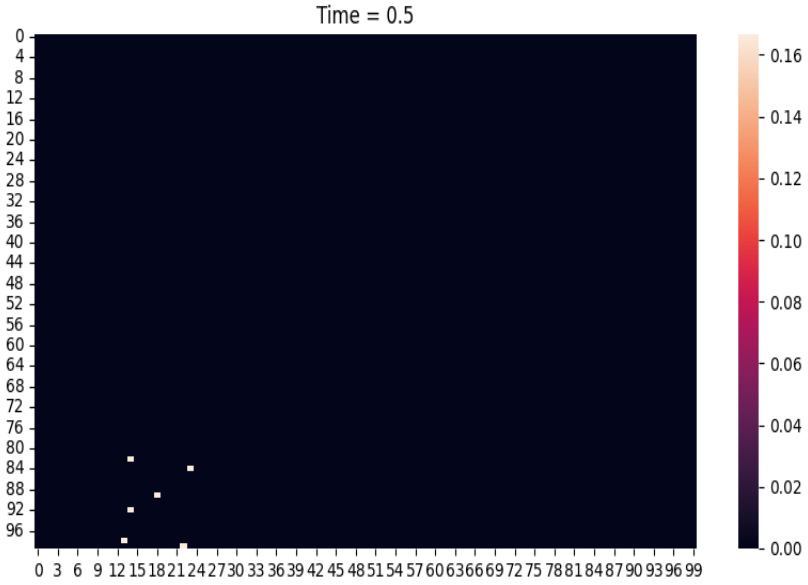
Mean : 0.30634540784939884
Variance : 0.015588342561310838

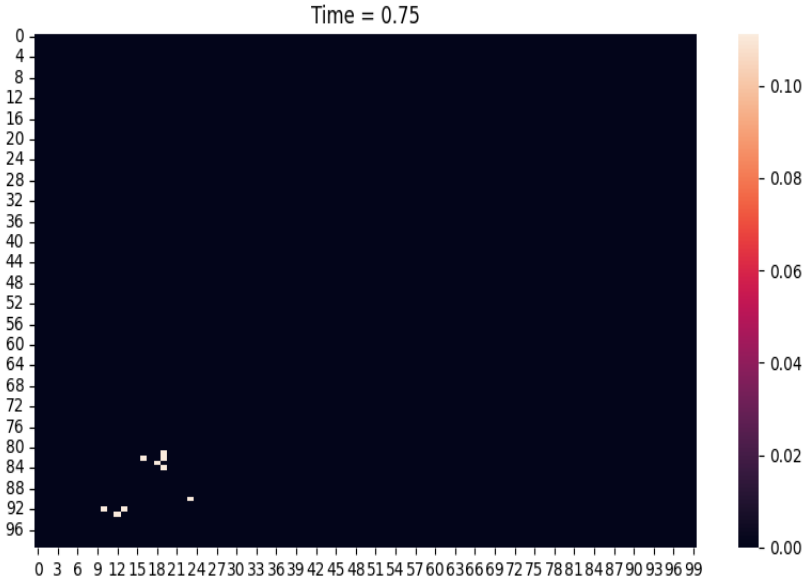


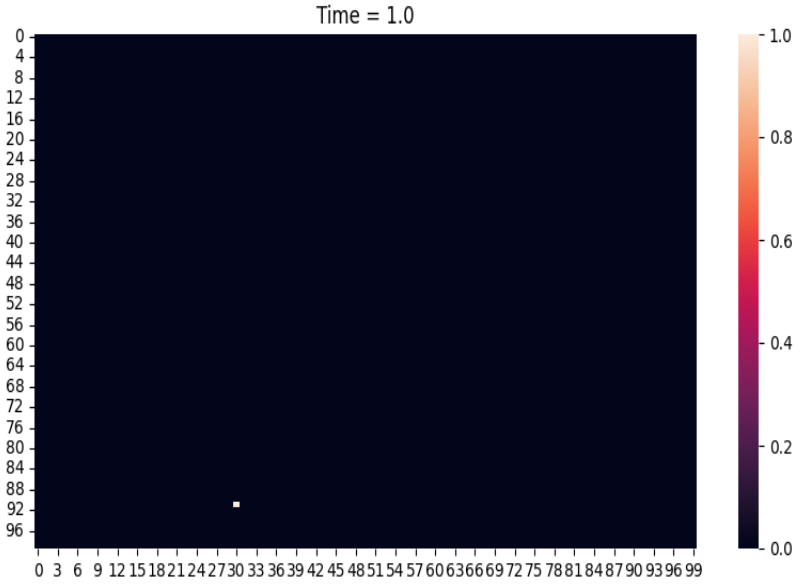
Mean : 0.12273689072215829
Variance : 0.0356285928579978
Spatial Distribution Density Heatmap




Time = 0.25
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96
0 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 48 51 54 57 60 63 66 69 72 75 78 81 84 87 90 93 96 99
0.07 0.06 0.05 0.04 0.03 0.02 0.01 0.00


Time = 0.5
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96
0 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 48 51 54 57 60 63 66 69 72 75 78 81 84 87 90 93 96 99
0.16 0.14 0.12 0.10 0.08 0.06 0.04 0.02 0.00





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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.