

EN602.617: Module 8 Assignment

Oct 27, 2021

This assignment consisted on me writing a 2d convolution routine and scaling a matrix. On the final project I intend to implement John Conway's game of life. As part of this I will need to do a 2D convolution over the grid in order to determine the number of neighbors. Using cuFFT I can accelerate the 2D convolution by several orders of magnitude and make the simulation run faster. This is what I implemented in the convolution2d executable. The matrix scalar multiplication operation is useful if I fully implement a paper evolving the simulation from the game of life to Lenia. A time step must be applied, which means I have to scale the matrix by a fraction.