The Linear Lunatics





What our software app is about

Our application displays information for a user-defined cellular automata system. We use our custom-defined matrix operations to compute statistical information for the system; such as:

- Nullspace(s) of the automata system
- Row-reduced echelon form for transition-matrix of the automata system
- If a cellular automata system is reversible or irreversible
- Number of cycles within an automata system

Technologies we used

Python3 with following modules:

- PyQt5 for creating our GUI
- numpy for our arithmetic
- matplotlib for cell representation

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Automata

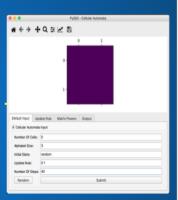
over n-steps!

What we have learned & gained

- How to create user interface applications
- Work on code and maintain versions amongst our team
- Gained experience working with a client and meeting required expectations

Group members (from left-to-right)

Sean Dunn Joseph Craft Kevin Koch Maliak Green



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	G2/A 0 10 10 10 10 10 10 10 10 10 10 10 10 10
Default Input Up	Sate Rule Matrix Powers Output
✓ Cellular Automata Input	
Number Of Cells:	6
Aphabet Size:	3
Initial State:	random
Update Rule:	01
Number Of Steps:	40
Random	Submit

Scan our QR To visit our git and download our software!

