

User Story

animated - 1. Dynamic pixel locomotion, 2. follow defined ruleset, fast state transition performance

premade - 1. A couple of interesting rules, 2. Implemented as shaders, 3. Selectable in side menu

Fullscreen - 1. Button to fullscreen, 2. Icon changes state of window

Pen - 1. Pixel perfect drawing, 2. Square brush type, 3. Change brush size, 4. Cant draw when menu clicked

Zoom - 1. Scale pixel size,

To do

In Progress

Done

GPU shaders for cellular automata

p5.js React component to interact with shaders

1D in 1D

1D in 2D

2D in 2D

Material UI barebones interface/layout

Create list of desired rulesets

Button to hide UI and make fullscreen

Button to activate pen mode

Map mouse movements into p5 then into shader

Change cursor to crosshair

scale pixels with zoom

User Story

Pause - 1. Button to stop animation and state transition, 2. Toggle state of play, 3. Change icon accordingly

Shader lang - 1. IDE to develop code, 2. Compile to GLSL code, 3. Animate CA with Rule from GLSL code,

Welcome/About - 1. Loading HTML page at root url, 2. Describe the platform

Save - 1. Upload state and properties to server, 2. Retrieve state and props from server

To do

In Progress

Host database

Done

Pause CA animation

Change state while paused

Continue CA animation from current state

Python prototype

Integrate prototype in p5

Write shaderlang in JS

Integrate shaderlang in right-hand tab

Logo

Description of what Cellular Automata is

Navigation to simulation canvas

Build database

Export data from p5

Send data through server to database

User Story

Account - 1. Secure,
2. Register new
account, 3. Hashed
passwords, 4. Json
web token

Color Picker - 1.
Interfaces with
shader lang
state/IDE, 2. Usable
by pen, 3. Maintain
color

Properties_UI -
1. Sliders to
change
properties of
the viewer

Community
Post - 1. A list
of CA posts
with titles and
creators, 2.
Sort By filter,

Error Message
- 1. Warning
when IDE
code doesn't
compile, 2.
Red color

To do

In Progress

Done

Create
account
db
function

Login db
function

Security
tokens /
session
IDs

UI

API
schema

API
routing
to db

UI

Integrate
colors in
React
states

Maintain
colors/states with
graphical
representation

Input
slider for
properties
values

UI component
for shaderlang
parameters

Integrate
selected
parameters in
shaderlang &
p5

Basic
function
of listview

Will follow social
media aesthetic
with: post name,
creator name, link
to CA

Snackbar
to show
Alert
message

Export as
component

User Story

Post to Canvas - 1.
Link that loads
posts into canvas
from community
page

Saved Posts -
1. List all the
posts the user
has created

Post Delete - 1.
Button to
remove post
from server

Export Button
- 1. Button to
get PNG of
state

To do

In Progress

Locally store
the current
post id being
viewed

API
route
Delete

Done

On click,
routes to
canvas page
with chosen
CA

Able to click
on own saved
CAs and
restore it

Delete
button for
a user's
posts

Frontend-backend
requester delete
function

On click,
removes
post from
shown list

