Standup Meeting Notes

1/15

When2meet: <https://www.when2meet.com/?23128682-i7nRK>

Overarching goals

* Website for people to determine their own cellular automata
  + Create and animate
  + User accounts
    - Share and save
* Editor for cellular automata
  + Drop down menu
  + Code editor
  + Premade CA rulesets

User stories

* Viewers
  + As a viewer, I want to use premade CA rulesets, so that I can look at trippy visuals with minimal effort.
    - Default settings Dropdown
  + As a viewer, I want to enable fullscreen no UI mode so that I can look at trippy visuals.
  + As a viewer, I want to populate cells with “random” mouse movements so that I can look at trippy visuals without having to come up with an initial state.
* Creators
  + As a creator, I want to be able to save the state of my cellular automaton.
  + Builder – use CA to make neato initial states
    - As a builder, I want to save a GIF, so that I can share my cool cellular automata.
    - As a builder, I want to have reusable pieces to construct my CA’s initial state, so that I can speed up my development time.
    - As a builder, I want to use premade CA rulesets so that I can focus on building initial states.
  + Writer – write own CA
    - As a writer, I want to make cellular automata rules, so that I can create unique visuals and model physical reactions (etc).
    - As a writer, I
* Gamer
* Moderators ?
* Database guy :(

Priority List

1. Animating basic cellular automata
   1. 2D – game of life rules
   2. 1D - Rule 30
   3. 1D
   4. 2D – other rules (smooth, etc)
   5. 3D – stacking 2D
2. Initial state editor
   1. Timeline - frame by frame progression & continuous
   2. Grid canvas that responds to mouse (click to add pixel to grid)
3. Cellular automata (ruleset) editor
4. Developer Presets
   1. Game of Life
   2. Langston’s loop
   3. That one chemical video in the discord
5. User Accounts
   1. Sign in with google
   2. Duck dns?
6. Community Presets (internal sharing)
   1. Rulesets
   2. states
   3. Structure catalog
7. Expanded sharing (external sharing)
   1. Exporting to gif
   2. Exporting (states, rulesets, structures) to hashed string (?)

1/22 - 15 min meeting

Kevin

* Yesterday
  + 1 dimension cellular automata - got that working
    - P5.js can draw stuff
    - Feed it into shader
    - Shader does transformation for CA
  + Changed front end to Vite
    - Performance is better now
  + Made React wrapper for P5.js
* Today
  + Mess around with styling
  + Work on 1d to 2d
* In your way
  + Database is unknown

Ethan

* Yesterday
  + Research on shaders
  + Database research
  + Javascript research
* Today
  + More research on javascript
* In your way
  + Homework from other classes

Preston

* Yesterday
  + Research on shaders
  + CA textbook research
  + Javascript research
* Today
  + More research on
* In your way
  + Homework from the weekend

Alex

* Yesterday
  + Reading textbook
    - Collecting premade
  + Researching shaders
* Today
  + Continue what was done yesterday
    - Look for more premade
  + More research
* In your way
  + Not able to get running (vite is causing issues)

Beckett

* Yesterday
  + Javascript research
  + Bug with compiler
    - Need better way to compare colors
* Today
  + Finish up compiler issue (in shader branch)
* In your way
  + Nothing in the way

1/25/2024 meeting

* Preston
  + Worked on ui for mouse cursor
    - Able to edit it between looking like a mouse or pen
    - Progress made, but not working
  + Plans to continue making the changing cursor feature
  + Has homework
* Beckett
  + Rewriting shader code
    - Found issue with version of p5.js we are using
    - Could potentially get in our way
  + Plans to Continue to write shaders
  + The version of webgl that p5 uses is in his way
* Kevin
  + Organized the github
    - More clear now
  + Created a method for scaling pixels
    - Not working yet
  + Working on getting the pixel scaler to work
  + Plans to continue working on UI
  + P5 is in the way
* Alex
  + Continued research into cellular automata
    - Found new one to make into a preset
  + Researched into shaders
  + P5 is in the way
    - confusing
  + Plans to work on the 1D and 2D
* Ethan
  + Continued research into shaders
    - Practiced making shaders
  + Continued research into databases
    - Looked into self hosting a database
  + P5 is in the way
    - It can be confusing
  + Plans to continue working on shaders
    - Creating prototypes of cellular automata shaders

1/26/2024

* Beckett
  + Most time doing spikes
  + Also worked on 2D\_in\_2D and shader lang
    - 2D\_in\_2D is going well
    - Issues with shader lang
  + Planning on working on zooming feature with Ethan
  + What is in the way
    - Shader lang issues
* Kevin
  + Added button highlighting
    - Easier to tell which brush is selected
  + Worked on scaling
    - Scaling prototype is working, but not with cellular automata so far
  + What is in the way
    - Scaling is not working
  + Planning on working on scaling and more rules
* Preston
  + Worked on spikes
  + Currently working on ui buttons
  + Plans to change the cursor to represent the highlighted brush
  + Issues in way
    - Learning frontend technologies we are using
* Alex
  + Worked on spikes
  + Plans to work on 1D\_in\_2D
  + Issues in the way
    - Learning shader code
    - Learning the technologies
* Ethan
  + Worked on spikes
  + Practiced shaders and javascript
  + Issues in the way
    - Learning shader code
    - Becoming familiar with the technologies we are using

1/29/2024 meeting

* Kevin
  + Continued working on scaling
    - Still not working
  + Going to continue working on the scaling
  + Planning on implementing other rules
    - Sand falling rule
  + What is in the way?
    - Scaling is being difficult to implement
    - Cross platform compatibility
* Preston
  + Continued working on custom cursor for site
    - Still not working
  + Going to continue working on the cursor
    - Compromise: Planning on individually implementing the different types of cursors
  + What is in the way?
    - Issues with using the svg images
    - Going to use premade crosshair instead
* Alex
  + Working on creating the 1D\_in\_2D
    - Trying to edit shader to feed it a preset
  + Planning on continuing work on the 1D\_in\_2D
  + What is in the way?
    - Issues with implementing shaders
* Ethan
  + Worked on looking at 2d cellular automata in a 3d environment
  + Planning to continue work on 2d cellular automata in 3D
    - Also going to continue work and research into backend technologies
  + What is in the way?
    - Homework
    - Shader code
* Beckett
  + Working on scaling via the 3D method in threejs. Stopped with the triple buffer method
    - Not working – threejs likely not worth the effort
  + Planning to continue working on the 3D method, this time in p5js
  + What is in the way?
    - Homework
    - Personal life

1/31/2024 meeting

* Kevin
  + What did you do yesterday?
    - Working on translating 2D in 2D into a 3D environment
    - Cleaning code (comments)
  + What are you going to do today?
    - Better UI
    - Coordinate mapping
  + What’s in your way?
    - Linear Algebra
    - Frontend Headaches
* Preston
* Alex
* Ethan
* Beckett
  + Working on shader-lang again because it can be used to implement the automata presets.
    - Threejs is a bust
    - Lots of insight on p5js – it uses webgl 2, which doesnt implement all of the specs in any given version directive
  + Planning to wrap up shader-lang – got some major insight to completing it in a timely manner without
  + What is in the way?
    - Unclear Khronos documentation mostly
    - Personal life
    - Homework

2/2

Preston

* Yesterday:
  + Finished custom cursor (90%) [2 hours]
* Today
  + Wrap it up
  + Try welcome page
* In my way
  + Class midterms

Kevin

* Yesterday
  + Coordinate mapping
* Today
  + Pull out drawer
* In my way

Beckett

* Yesterday
  + Javascript conversion
* Today
* In my way
  + Research complexity
  + classes

Alex

* Yesterday
  + Pausing feature
* Today
  + Continue working on the pause feature (use blip?)
* In my way
  + Working around shader to enable user interaction

Ethan

* Yesterday
  + Set up database
* Today
  + Set up database (add account feature)
* In my way

2/5

Ethan

* Yesterday
  + Set up database
* Today
  + Set up database
* In my way
  + Lots of HW

Becket

* Yesterday
  + Shader lang
* Today
  + More shader lang - precision
* In my way
  + Lots of HW

Kevin

* Yesterday
  + No progress - was busy
* Today
  + Clear HW and merge custom cursor
* In my way
  + Hw from other class

Preston

* Yesterday
  + Debug change cursor
* Today
  + Debug change cursor
* In my way
  + Power outage
* Yesterday
  + Pause feature
* Today
  + Pause feature
* In my way
  + Power outage

2/7

Ethan

* Yesterday
  + Establish database (cse180 hw was research)
* Today
  + Database stuff
* In my way
  + Cse 180 hw

Preston

* Yesterday
  + Custom cursor finished
* Today
  + Button color change
  + Welcome page
* In my way

Kevin

* Yesterday
  + P5 wrapper change
* Today
  + Improve UI element
* In my way
  + Get better at react code

Alex

* Yesterday
  + Pause feature working for the most part
* Today
  + Test pause feature
  + 1d in 2d
* In my way
  + Hw coming up

Beckett

* Yesterday
  + Convert lang python script to js
* Today
  + Convert lang python script to js
* In my way
  + Homework and not understanding react

2/9

Beckett

* Yesterday
  + Getting compiler to work in webpage
* Today
  + Make sure canvas does not refresh after compiling
* In my way
  + Not knowing react and HW

Kevin

* Yesterday
  + How to share data between p5 and React
  + Switch to using pre-established library
* Today
  + Work with alex for pause functionality
  + Get more rules into game
* In my way

Alex

* Yesterday
  + Pause is working (uniform bool) - pushed
  + 1d in 2d - working pretty well
* Today
  + Keep working on 1d in 2d
* In my way
  + Hw due this weekend

Preston

* Yesterday
  + Pushed custom cursor
  + Worked on color button panel
* Today
  + Work on color button panel
  + Welcome page
* In my way
  + Weekend with family

Ethan

* Yesterday
  + Worked on API for database
* Today
  + Continue working on it
* In my way
  + Midterm and hw
  + Unfamiliarity with javascript

2/12

Beckett

* Yesterday
  + Implement language into website
  + Finished compiler
* Today
  + More implementation and making it look nice
* In my way
  + Big paper due

Alex

* Yesterday
  + Not much progress due to HW
* Today
  + Wrap-around for 1d in 2d
  + Saving states
* In my way

Ethan

* Yesterday
  + Set up more of database (limited permissions)
* Today
  + Keep working on API
* In my way
  + Lots of hw and midterm

Preston

* Yesterday
  + Not much progress
* Today
  + Bare bones welcome page
* In my way
  + Hw and midterm

Kevin

* Yesterday
  + Merging branches into main
  + Seeds CA
* Today
  + Resize UI elements
  + Expand left panel
* In my way
  + Hw

2/15

Preston

* Yesterday
  + Basic Welcome page
* Today
  + Continue improving the Welcome Page
* In my way
  + Homework

Beckett

* Yesterday
* Today
  + Hot-loading fragment shader after compile
* In my way
  + Homework

Kevin

* Yesterday
  + Resizeable panels
  + Colored state and rule passing to shader
* Today
  + Multiple neighborhood CA
* In my way
  + Homework

Alex

* Yesterday
  + 1D in 2D wrap-around/scroll
* Today
  + Continuing 1D in 2D wrap-around/scroll
  + Getting 1D in 2D working in current version of main branch
* In my way
  + Homework

Ethan

* Yesterday
  + Continued work on Database API, login() logout() working; finished readme
* Today
  + Work on last functions of database API
* In my way
  + Homework and midterms

2/16

Alex

* Yesterday
  + Started implementing matrix idea for 1D in 2D wrap-around
* Today
  + Continuing 1D in 2D
* In my way
  + Homework

Ethan

* Yesterday
  + Readme for API done with instructions on how to use it
* Today
  + Posting functions
  + Secure the implementation
  + Testing page for database
* In my way
  + Homework

Beckett

* Yesterday
  + Made compiler in JS
* Today
  + Transition rule editor to UI
* In my way
  + Homework

Preston

* Yesterday
  + UI improvements to welcome page
* Today
  + Continuing work on Welcome
  + More animated background for Welcome
* In my way
  + Homework

Kevin

* Yesterday
  + Made sliders hot-load changes for canvas
  + Sketch moved from “monstrous” function to a class enabling inheritance
  + Used React context to consolidate props
* Today
  + Move toward implementing multiple neighborhood CA
* In my way
  + Homework

2/21

Beckett

* Yesterday
  + Improving language UI tab
    - Color picker
* Today
  + Get compiler working
* In my way
  + Homework

Preston

* Yesterday
  + Buttons on welcome page
* Today
  + Gif for welcome page
* In my way
  + Hopefully nothing

Kevin

* Yesterday
  + Merging Beckett’s stuff into the main branch
  + Working on Login page UI
* Today
  + Login backend
  + Register functionality
  + 1D in 2D fixed and finished
* In my way
  + COVID

Alex

* Yesterday
  + Not much :(
* Today
  + 1D in 2D
* In my way
  + Portland drive

Ethan

* Yesterday
  + Finished post functionality
* Today
  + Security testing
  + Adjust login
* In my way
  + Homework

2/23 - Friday

Kevin

* Yesterday
  + Login page
  + Hosting
* Today
  + Login and register working with database
* In my way
  + COVID

Beckett

* Yesterday
  + Language page
  + Color picker
* Today
* In my way
  + Homework

Preston

* Yesterday
  + About page
* Today
  + About page
    - Need headshot of everyone + bio
  + Community Page
* In my way
  + Homework

Alex

* Yesterday
  + 1D in 2D
* Today
  + Finish 1D in 2D
  + Community Page
* In my way
  + Homework

Ethan

* Yesterday
  + Spike research
  + Planning community page layout
  + Testing database functions
* Today
  + Saving state
* In my way
  + Homework

2/28

Alex

* Yesterday
  + Community page
  + Post display
* Today
  + Cannibalize Preston(‘s community page)
  + Populate posts with database values
  + Make test data
* In my way
  + RAC 4

Beckett

* Yesterday
  + Made custom shaders work
  + Tried syntax highlighting
* Today
  + Make color/state data easy to store
  + Integrate premades in UI
* In my way
  + RAC 4

Ethan

* Yesterday
  + Complete plan for middleware remote function calls via express
    - Accessing the database easily client side
  + Researched into sanitizing BLOBs
* Today
  + Implementing yesterday’s research
  + Testing the concepts
* In my way
  + Lots of hw
  + Personal life
  + FAFSA issues

Kevin

* Yesterday
  + Save state (backend)
  + Resurrect state (backend)
  + Authentication (backend)
  + User account creation (backend)
* Today
  + Frontend for authentication
* In my way
  + Job applications
  + RAC 4

Preston

* Yesterday
  + Community page
  + Post display
* Today
  + Community page
* In my way
  + RAC 4
  + HW

Date: 3/1/2024

Alex

* Yesterday
  + Working on linking posts from database to a mapped list on the community page using the post IDs
* Today
  + Integrate custom rules into community
* In my way
  + HW

Beckett

* Yesterday
  + Revamped premade tab
  + Got ready for saving in database
* Today
  + Dynamic help page
  + Save custom rules in database
* In my way
  + HW

Ethan

* Yesterday
  + Work on frontend-facing database API
  + Sanitization research
* Today
  + Continue API work
  + Integrate people’s specific database needs
* In my way
  + HW

Kevin

* Yesterday
  + Revamped Viewer/Builder/Creator UI
  + Made login
  + Overlay graphics
* Today
  + Polish
* In my way
  + HW

Preston

* Yesterday
  + Recovering from sickness
* Today
  + Continue work on community page
* In my way
  + HW, sickness

3/6

Alex

* Yesterday
  + Visibility for posts
* Today
  + Setting up delete and linking function
  + merging
* In my way
  + Other classes hw

Beckett

* Yesterday
  + Shader lang
* Today
  + Shader lang
* In my way
  + Homework

Ethan

* Yesterday
  + Working with Kevin on Backend API
* Today
  + Serialization stuff
  + Working with Kevin on Backend API
* In my way
  + JS stuff

Kevin

* Yesterday
  + Working on Backend API
* Today
  + Register page
  + Working on Backend API
* In my way
  + JS stuff

Preston

* Yesterday
  + Finishing touches on community
* Today
  + Change top bar after login (username)
  + Add way to title CA in top nav bar
    - Also add save button
  + Remove sign up
  + Test on separate platforms
* In my way

3/8

Alex

* Yesterday
  + Post delete button
    - Backend
    - Frontend
* Today
  + Match up user posts to users
* In my way
  + Finals

Beckett

* Yesterday
  + Shader lang
* Today
  + Shader lang
* In my way
  + Shader lang, homework

Ethan

* Yesterday
  + Frontend interface with backend
  + Testing
* Today
  + Frontend integration
  + Wrapping up
* In my way
  + Not much!

Kevin

* Yesterday
  + Helping Ethan
  + New front page
  + Sign in & register page
* Today
  + Polish!
* In my way
  + Time crunch

Preston

* Yesterday
  + Top navigation bar
    - Change title
    - Save button
* Today
  + My CA page
* In my way
  + Homework

3/11

Alex

* Yesterday
  + Delete nothing hard weekend me
* Today
  + paperwork
* In my way
  + paperwork

Beckett

* Yesterday
  + Polish
* Today
  + paperwork
* In my way
  + paperwork

Ethan

* Yesterday
  + Testing and paperwork
* Today
  + paperwork
* In my way
  + paperwork

Kevin

* Yesterday
  + integrated the backend frontend
* Today
  + paperwork
* In my way
  + paperwork

Preston

* Yesterday
  + Tested and My CA Page
* Today
  + paperwork
* In my way
  + paperwork

FOR THE FINAL: