1ST TERM PROJECT

MARIA JENDE

Web-Based Particle Rollercoaster

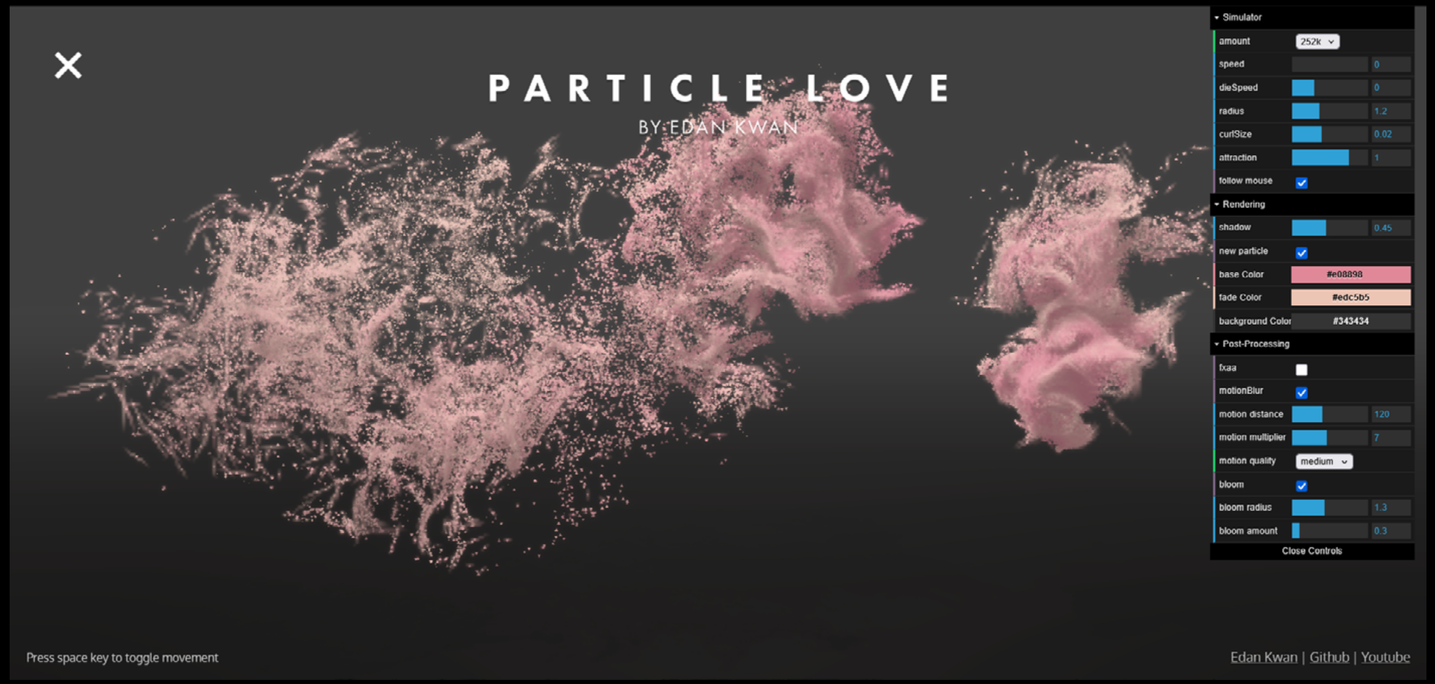
The Project

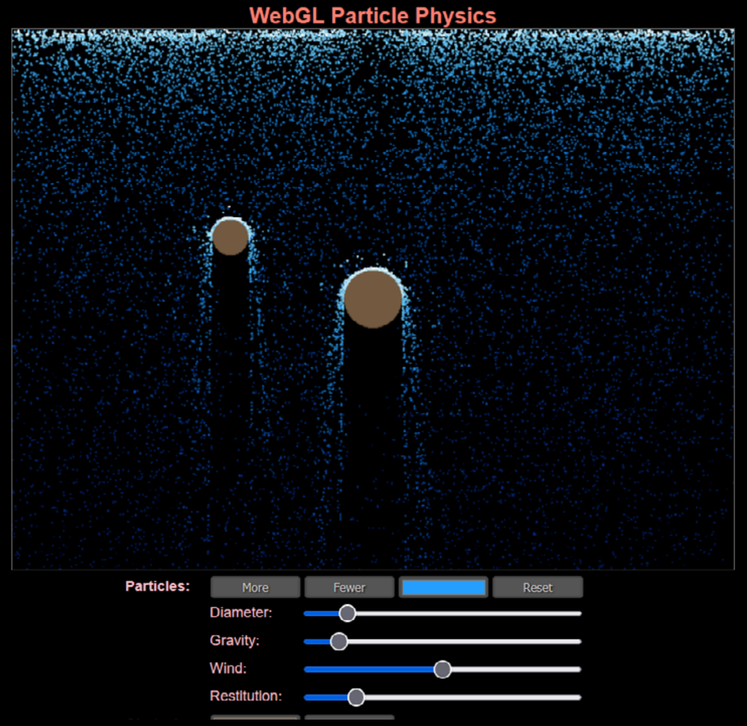
Final Product: Interactive web experience

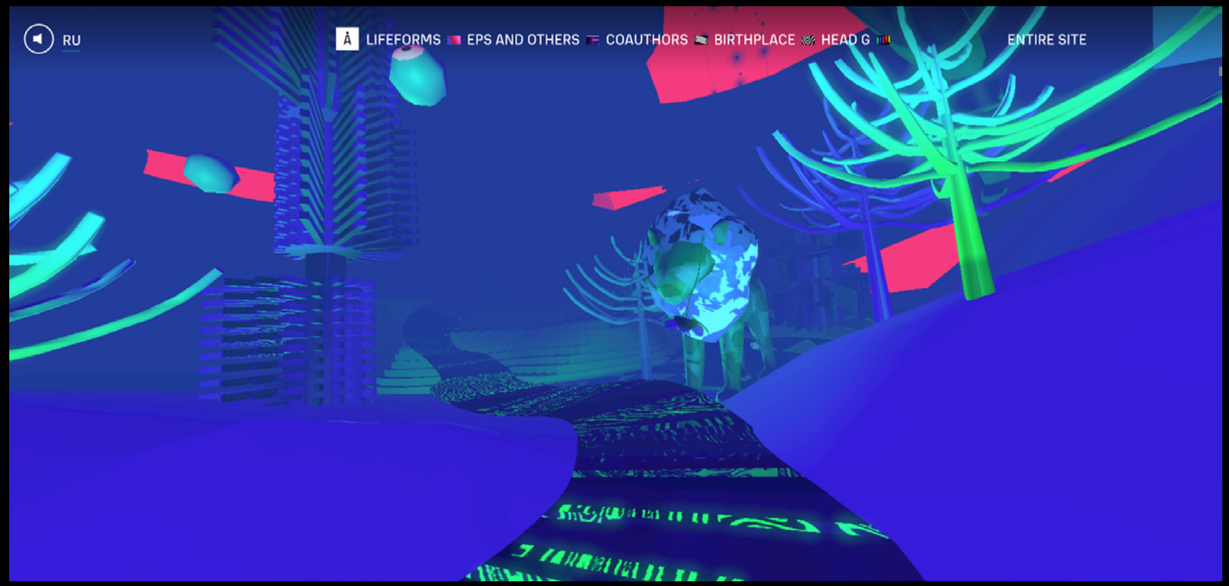
Tool: Three.js

Concept: Rollercoaster-like pathway with evolving particles

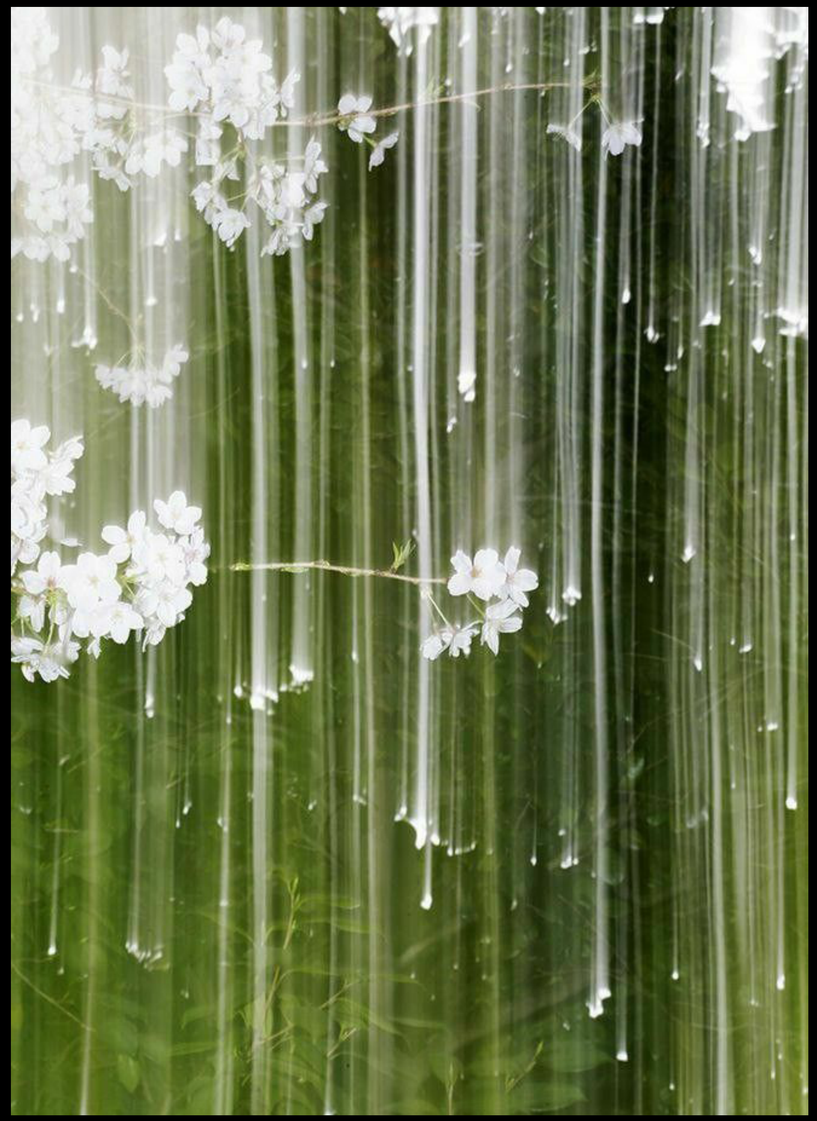
Motivation: Learn creative coding and the basics of particle simulation

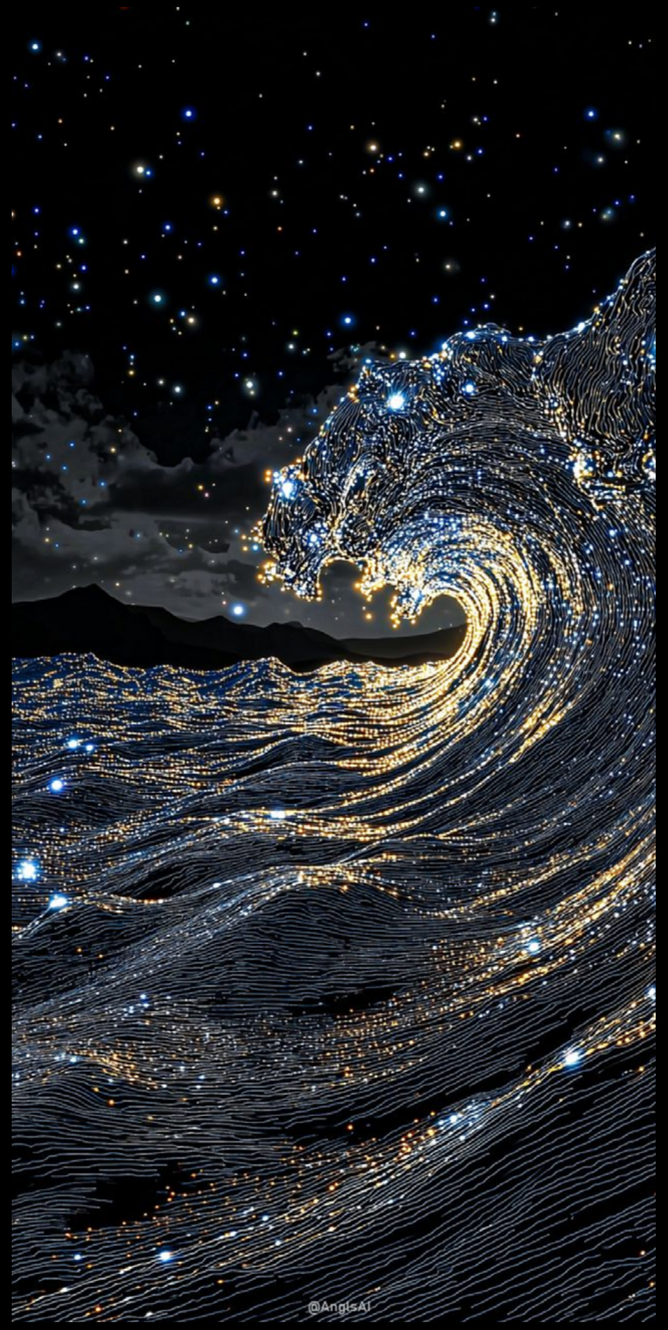

PARTICLE LOVE
BY EDAN KWAN
Simulator
amount
252k
speed
0
dieSpeed
0
radius
1.2
curlSize
0.02
attraction
1
follow mouse
Rendering
shadow
0.45
new particle
base Color
#e08898
fade Color
#edc5b5
background Color
#343434
Post-Processing
fxaa
motionBlur
motion distance
120
motion multiplier
7
motion quality
medium
bloom
bloom radius
1.3
bloom amount
0.3
Close Controls
Press space key to toggle movement
Edan Kwan | Github | Youtube


WebGL Particle Physics
Particles:
More
Fewer
Reset
Diameter:
Gravity:
Wind:
Restitution:


RU
LIFEFORMS
EPS AND OTHERS
COAUTHORS
BIRTHPLACE
HEAD G
ENTIRE SITE

References





Moods

PARAMETERS FOR SCALING

- *Length of the experience*
- *Level of interactivity*
- *Complexity and variety of the particle simulation*

NICE TO HAVE

- *Particles forming actual shapes (e.g. flower, wave)*
- *Possibility to send a message to your future self at the end of the experience*

Scope

Scope

WORST CASE

(Interactive) web-based particle simulator with parameter controls

MIDDLE GROUND

Pathway experience with particles evolving along the way

BEST CASE

+ Interactive particles, particles forming shapes

+ Message functionality at the end

Time Schedule

January	CW 2	Theoretical research, simple p5.js particle tests
	CW 3	Starting with Three.js and web implementation
	CW 4	Three.js particle tests
	CW 5	Goal: test website with basic particle simulation / redefinition of final product
February	CW 6-9	Implementation of rollercoaster function (interactivity)
		Varying particle behaviour along the pathway
March	CW 10-11	Buffer or nice-to-haves
	15/03/2025	Project deadline