



# The Bubble Machine

Madeline Gent  
and  
Carolyn Bergdolt

# Overview

- Lets the user create bubbles in several different “environments”
- Two different bubble sizes
- Allows panning around the environment
- Bubbles float in different directions

# Implementation

- Separate cube map for each environment
- Fresnel shading to produce bubble effect (three.js)
- Orbit controls (three.js)--simplified trackball
- Random path generation for each sphere/bubble



# Benefits of three.js

- Simplicity
  - Sphere creation
  - Texture application
- Documentation
- Example code

The image features a surreal landscape. A horizontal teal band runs across the middle. Above the band, a bright sky with clouds is visible, and several large, reflective bubbles float in the air. Below the band, a dark, rocky foreground is shown, with a body of water and snow-covered hills in the background. More bubbles are scattered throughout the scene, some reflecting the landscape and others showing iridescent colors.

# Demo

# Potential for Expansion

- Let the user chose where the bubble originates
- Let the user specify the bubble size (more than 2 options)
- Implement a custom “bubble wand” object so the bubble doesn’t seem to appear out of nowhere