music-visualizer-vr

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Usage

Click HERE for Demo

- Upon page load, click 

to start visualization
- Mess around with x and y controls
- Click “Add Modulator” to add a new modulator
  - no actual functionality yet

About the modulator

The modulator is inspired by modular synthesis where you can modulate sound signals using different functions. It has 5 components:

- **Source**: This specifies the source of the data that will be used to modulate the *destination*
- **Destination**: This specifies the object to apply the modulation to.
- **Destination Paramer**: This specifies which parameter of the object should be modulated

Upcoming features

- Better VR support
- More objects (particles, lights, etc.)
- Ability to add modulator controls as destinations for other modulators.
- Upload your own music
- Use microphone input

Technology Used

Audio Parsing

The spectrum analyzer is the brains of the audio parsing. It uses `THREE.AudioAnalyser` to compute a Fast Fourier Transform (mapping amplitude to frequency).

VR

The VR support is done using WebXR.

Currently no iPhone support :(

References

- THREE.js audio visualizer example
- THREE.js webgl shaders ocean
- THREE.js audio visualiser by santosharron
- simplex-noise.js
- ChatGPT
- UMass Boston CS460!