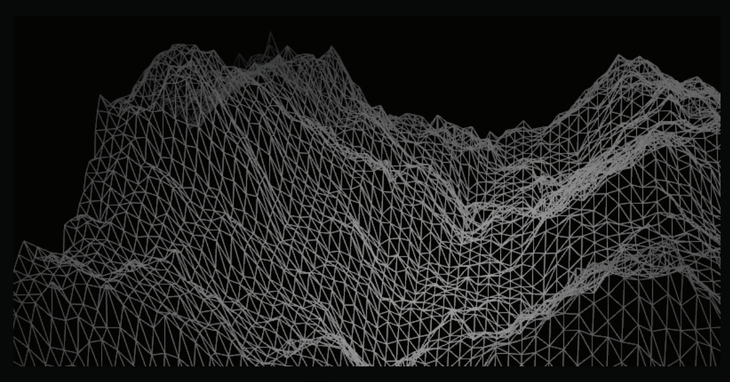
AudioViz

http://macobo.github.io/WebGL-Audio-Visualization

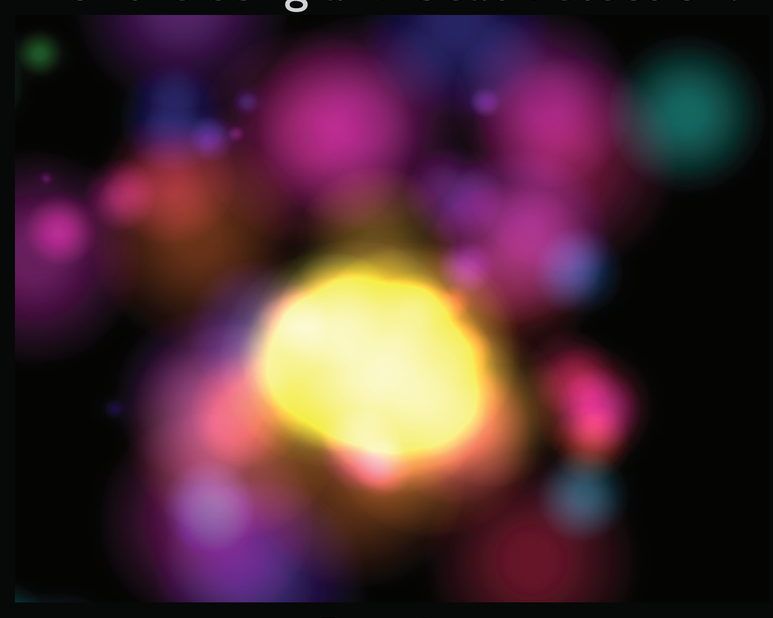
Music visualization is a creative task that needs knowledge of computer graphics, audio and human perception. We implemented an online visualization that streams songs from SoundCloud and has several different visualization that users can experience.

Particles and Terrain

Both of these visualizations use a beat detection algorithm to coincide with the playing song. Particles are generated and move at different rates depending on the tempo of the song. Terrain visualization consists of a moving camera and a changing grid depending on both the spectrum of the song and beat detection.



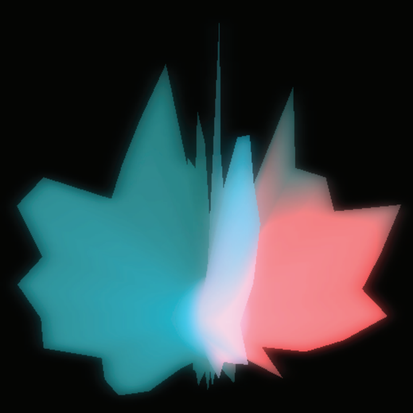
Terrain



Particles

Angels, Hedgehog and Lotus

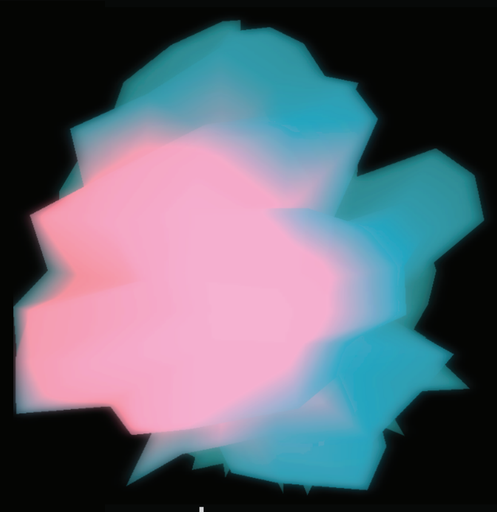
Those visualizations relay on the mapping of the song's spectrum onto a 3D sphere. Vertices of the approximation of the sphere are pushed outwards depending on the detected frequencies in the spectrum. Both the geometry and a point light source rotate around the central y-axis by taking into account the average power in the different parts of the spectrum.



Angels

Hedgehog

Lotus



Lotus

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Project is managed in github.com: https://github.com/macobo/WebGL-Audio-Visualization

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