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Computer Programming for Musicians

7 April 2025

Development Progress Report

The “Shoegaze Machine” is coming along! Modular audio routing is functioning as intended using the Web Audio API and Tone.js. There’s visual knob control through NexusUI for intuitive parameter control. I added a <canvas> element behind everything to show audio-reactive ambient shoegaze-style visuals that makes the experience feel immersive. After lots of trial and error, the performance in Chrome is smooth and responsive. The codebase is structured in a way that I can add more effects and UI.

A challenge was coming across browser security restrictions around AudioContext. I also discovered that Tone.js creates its own AudioContext internally, so I learned the hard way that if it’s not managed carefully with Web Audio API, it will cause issues. I also needed to debug a few times, I used filter before declaring it and didn’t realize. I’m still working on the visualizer, it changes color when the audio starts, but it isn’t audio reactive yet. I also still have yet to make the audio button toggle on and off, and have yet to introduce the musician presets.