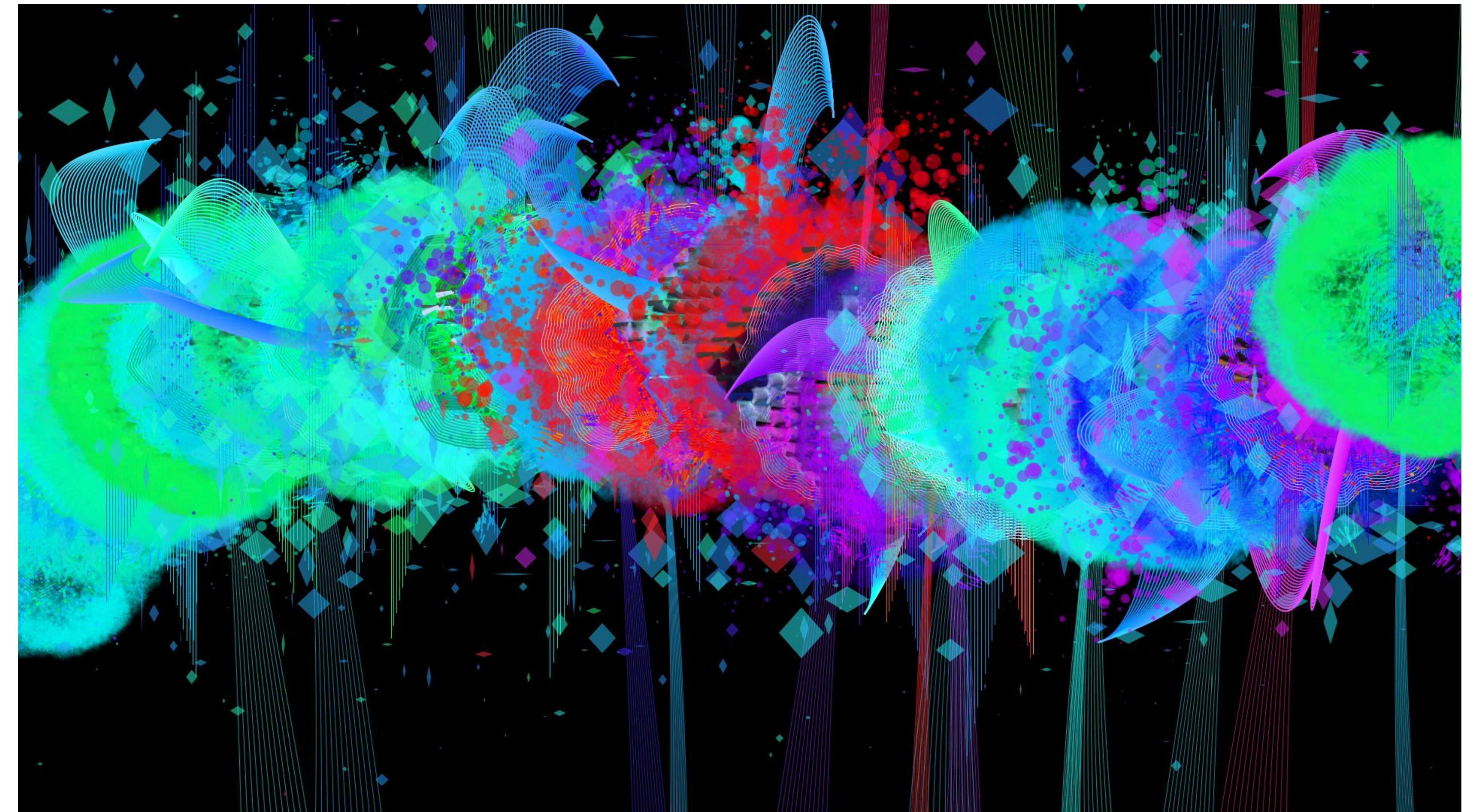




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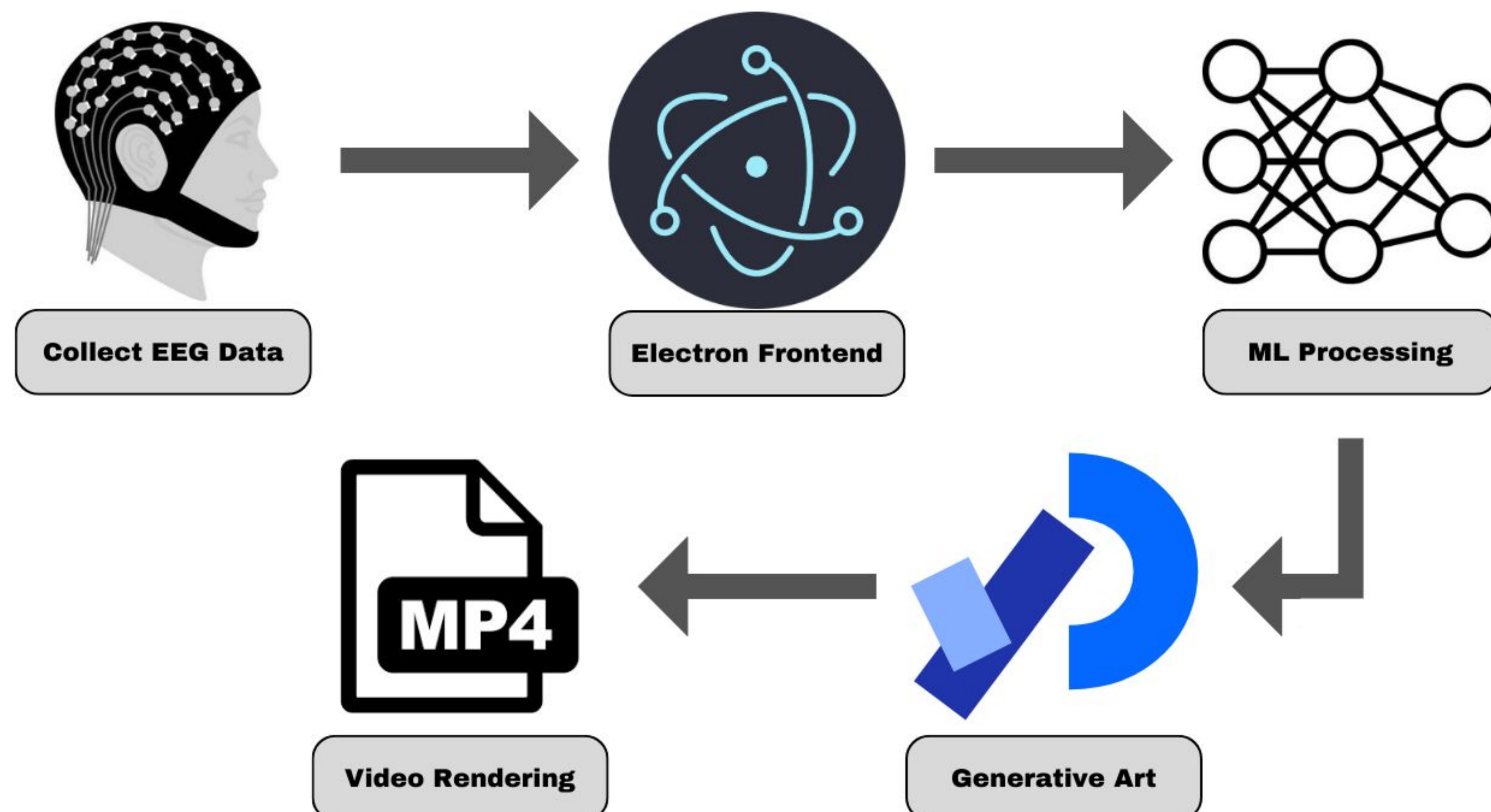
Description & Purpose

The goal of Soundfield is to visualize someone's emotions as they listen to music. We create these enticing visualizations by recording a participant's brain waves with an EMOTIV EEG headset while a song is playing. The raw EEG data is sent through machine learning models for emotional classifications that are used to create the generative artwork. The aim was to combine neuroscience, art, music, and programming into a cohesive product.



Art generated while participant listened to "Gimme! Gimme! Gimme! (A Man After Midnight)" by ABBA.

Design



Ethical & Intellectual Property Issues

Ethical: The EEG data should be kept anonymous and any personal or identifying information in regards to the data is kept to a minimum. The application is only usable with a 14 channel EEG device.

Intellectual Property: The machine learning models were based off of open-source tutorials and trained on data from open sources and meant to be used for academics only. The generative art designs were inspired from online sources.