



Sound Scape: Real Time Dynamic Music Generator

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MOTIVATION

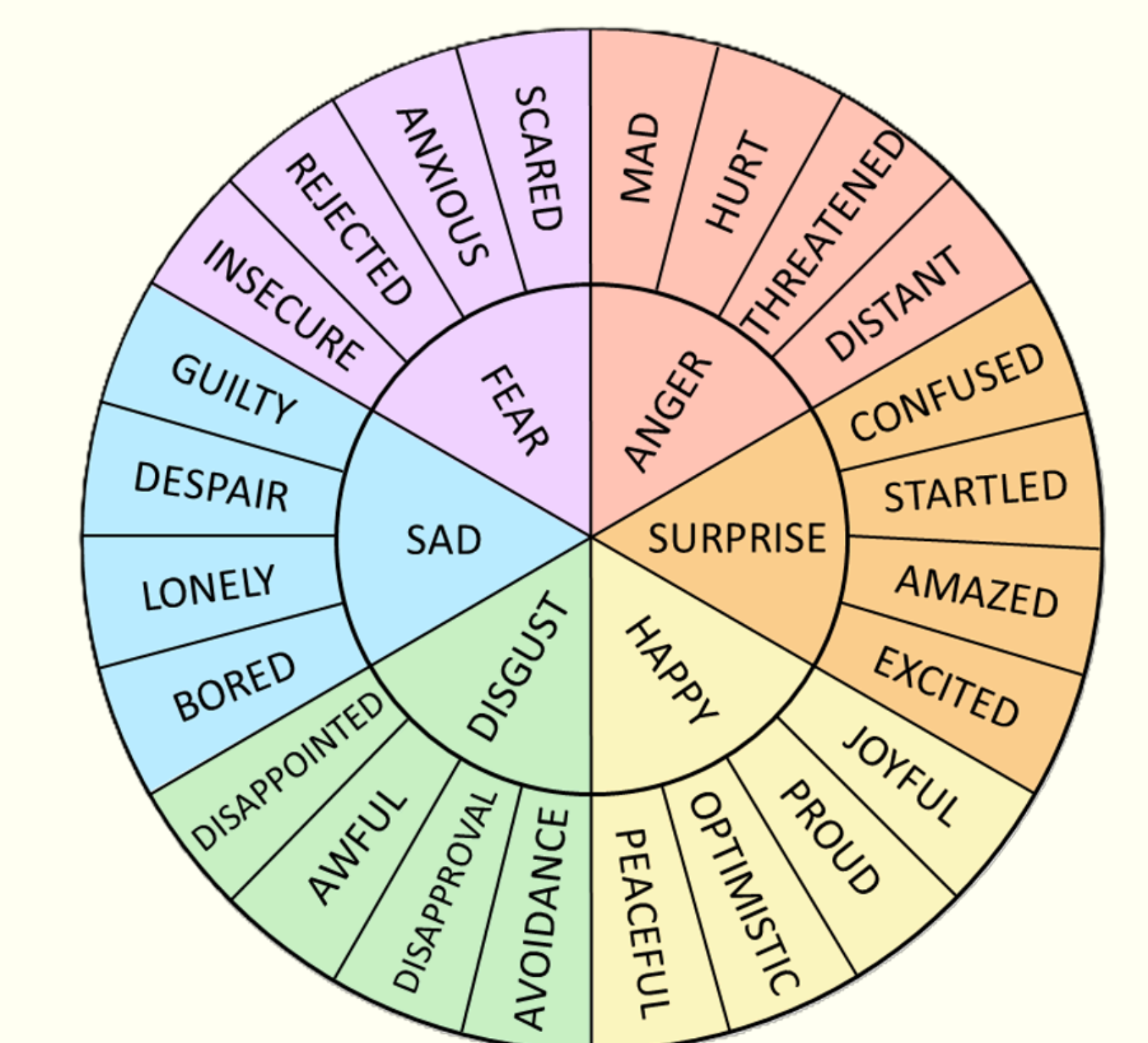
- Music influences mood, but finding the right track takes effort
- What if music could adapt to how you feel in real-time?
- Designed for immersive and tailored experiences: D&D campaigns, therapy sessions, meditation, social gatherings

Key Features

Real-time voice visualization captures speech and matches music to detected emotions, shown here in Casual Conversation mode with its purple theme.



EMOTION MODEL

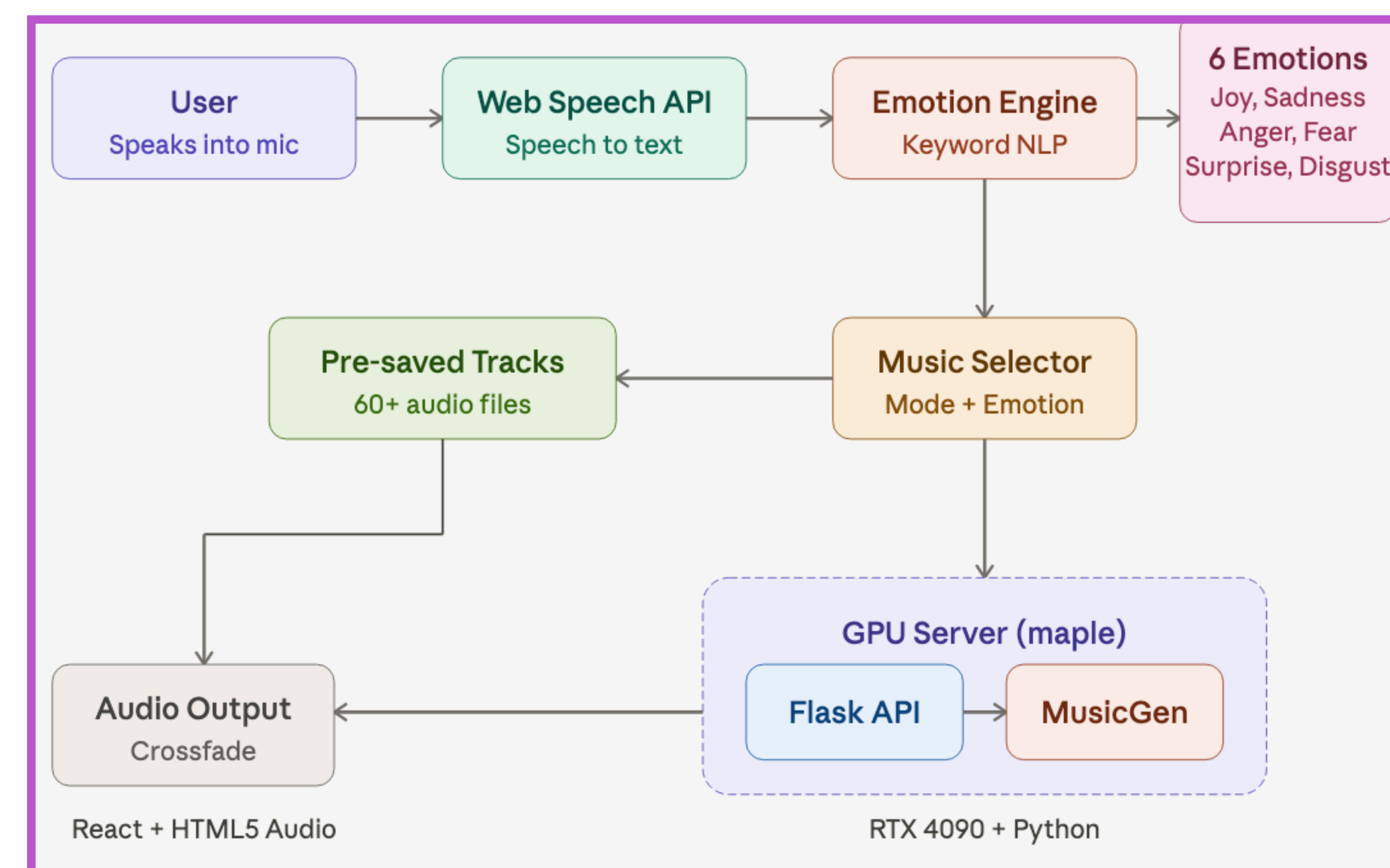


Based on Paul Ekman's Six Basic Emotions (1972). Universal emotions recognized across all human cultures.

PROJECT OVERVIEW

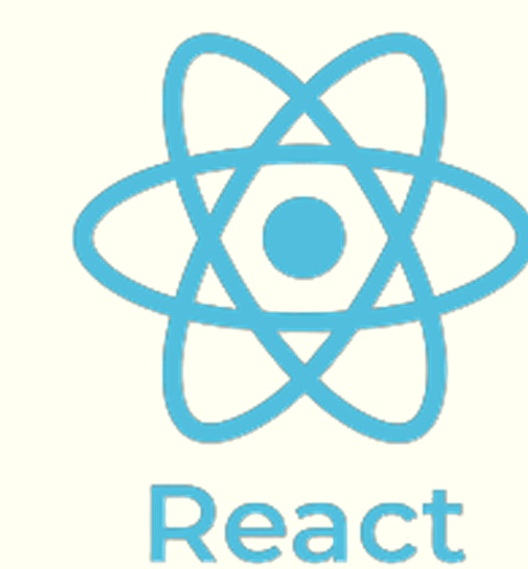
- Real-time emotion detection from voice input
- Automatic music selection based on detected mood
- 5 context modes: Casual, Meditation, Therapy, Board Games, D&D
- Smooth crossfade transitions between tracks
- AI-powered music generation using MusicGen

The system pipeline flows from voice input through the Web Speech API, into our custom emotion engine, then selects music based on mood and context mode.

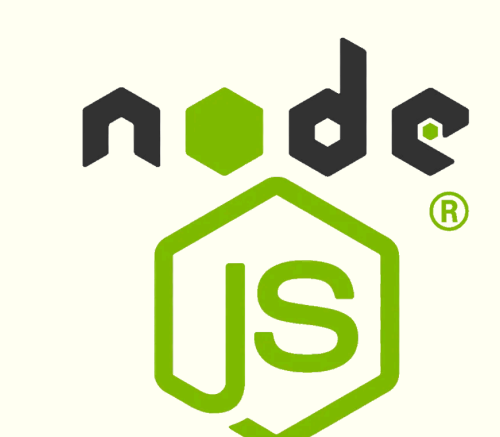


TECHNOLOGY STACK

Frontend:



Backend:



AI Music:



D&D Adventure mode transforms the interface with a crimson theme, delivering immersive audio that adapts dynamically to the energy of gameplay.