

ECS 193AB Winter/Spring2017

MixIt App

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Background: Do you find when listening to music you wish you could turn up one instrument or vocal or turn down some other instrument or vocal, i.e. create your own custom mix? Although audio mixing tools exist, they are overly specialized and complicated for your average user who just wants to pull out their phone and adjust the mix. Understanding when and how people will adjust a music mix is also a question that we are interested in in the Janata Lab, and we would like an app that would help us get answers to those questions.

Description: At its core the MixIt App receives a multitrack AAC stream, splits the stream into individual tracks, provides user controls to adjust the volume of each track, remixes the tracks, and plays the newly mixed stream. In its initial incarnation, this is envisioned as an iOS app. One of the components of this project is to actually create a multitrack AAC file. Though the AAC format supports up to 40 channels/tracks of audio, there do not appear to be programs available that allow one to create such multitrack files (apart from 5.1 audio). Audio to merge into a test file for the app will be provided.

Deliverables:

- 1) Prototype iOS app that allows a user to control the levels of individual tracks in a multitrack AAC file
- 2) Clearly and thoroughly documented source code

Contact: 2-4 hours of meeting with the researcher per month

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