Leakage Removal for Music Learning

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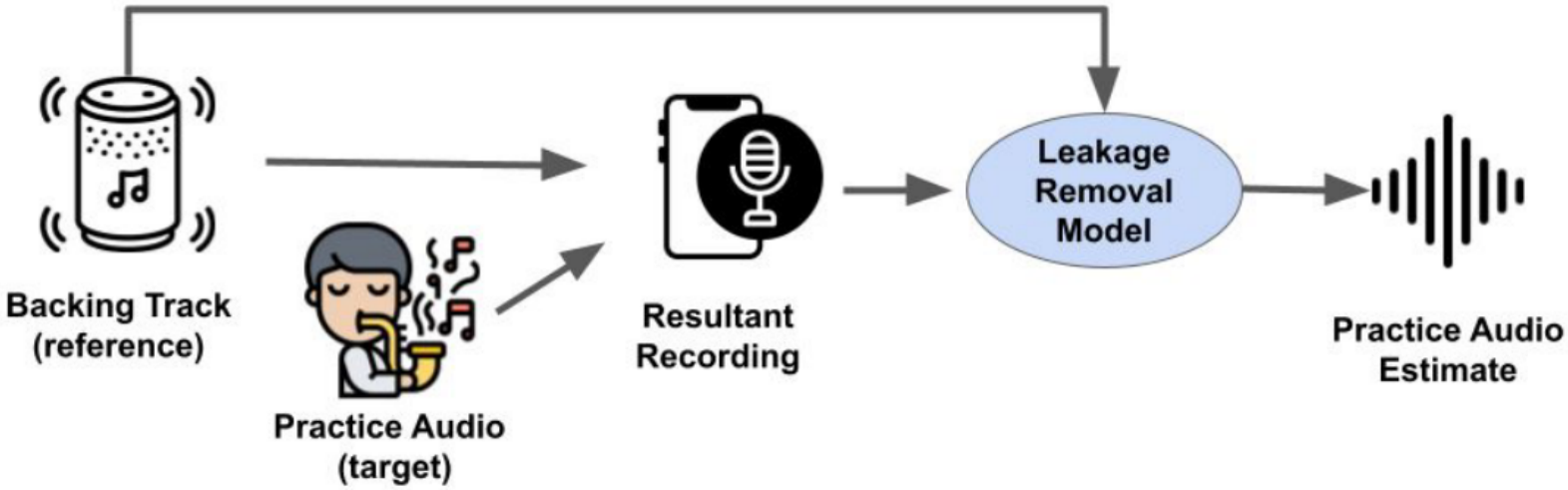
December 16, 2021

Research Movitation & Goal



- When practicing instrument, learners typically practice along with known backing tracks.
- The recorded audio is a mixture of learners' performance and the background tracks.
- We are trying to develop an algorithm than can remove the leakage of background tracks.

Methodology and Work Plan

- Methodology:
  - Try to "port" those state-of-the-art machine learning models used in similar tasks (such as source seperation and denoising) to this task.
- Work Plan:
  - Gather datasets for constructing data
  - Investigate state-of-the-art machine learning models used in source separation and denoising to select the most suitable representation for the task
  - Modify nueral network architectures, then train and test
  - Study different evaluation metrics and design subjective tests (human listening test). Evaluate the newly trained model in real world data