

# Speech Enhancement Topics

## Overview

1. A real-time low-resource SE model (<50M Flops, <2MB) for 44.1kHz speech.
  - For Lark meetings usage.
  - Main efforts is on bad cases repairments.
2. A speech enhancement model build with weakly labeled data from AudioSet.
  - Only contribute to the experiment parts. But the idea is worth sharing.

# Speech Enhancement

## Low resource and real-time

- Task: Build a real-time low-resource SE model (<50M Flops, <2MB) for 44.1kHz speech.
- Main efforts:
  - Data augmentations according to bad cases.
    - High reverberation, low frequency losses, bubble and keyboard noise, etc.
  - Input feature selections
    - MFCC, Energy feature, Delta feature and Mel spec.
  - Final model architectures.
    - Two layers of GRUs and linear layers.