

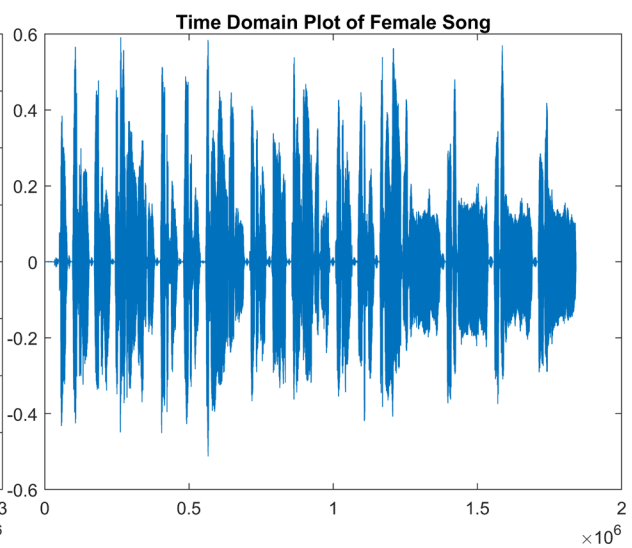
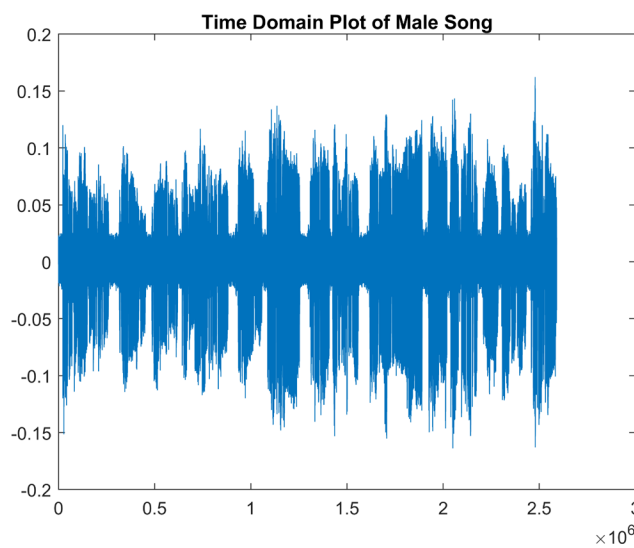
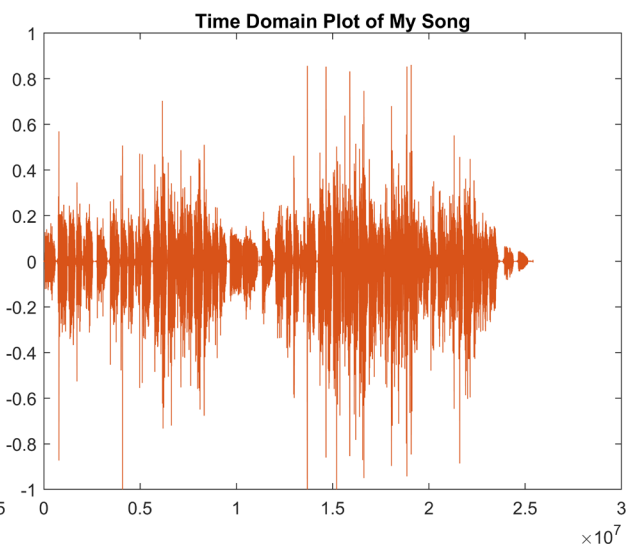
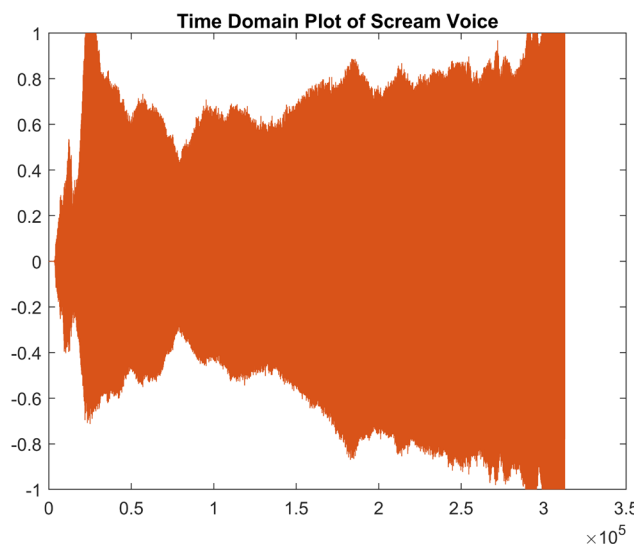
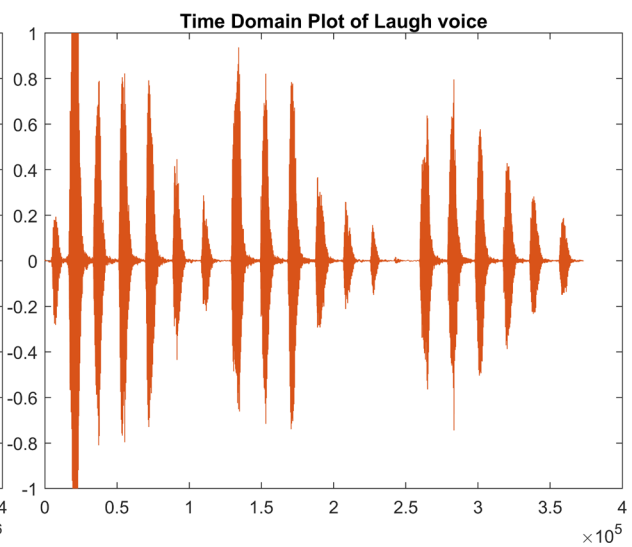
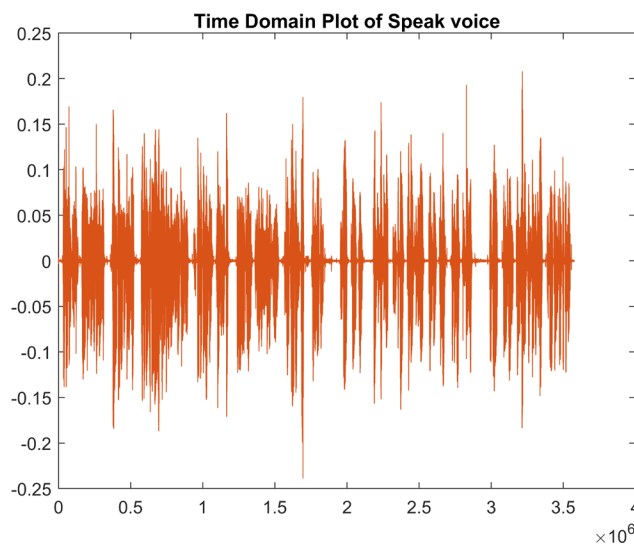
Environment Requirements

- Optimization Toolbox – for `linprog` in `emd`.
- Parallel Computing Toolbox – for `parfor`.

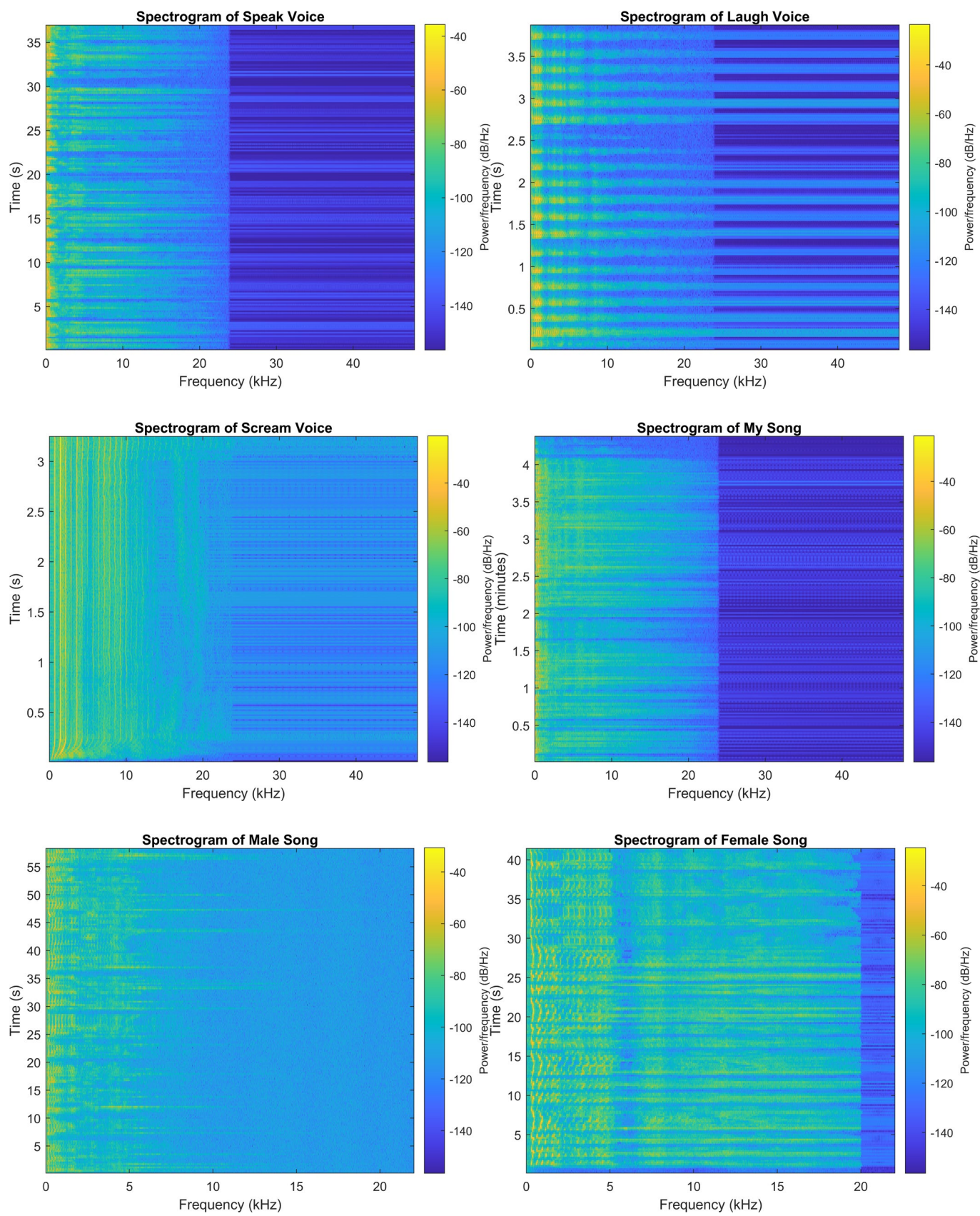
Reference

- <https://www.mathworks.com/matlabcentral/fileexchange/22962-the-earth-mover-s-distance>
- ChatGPT

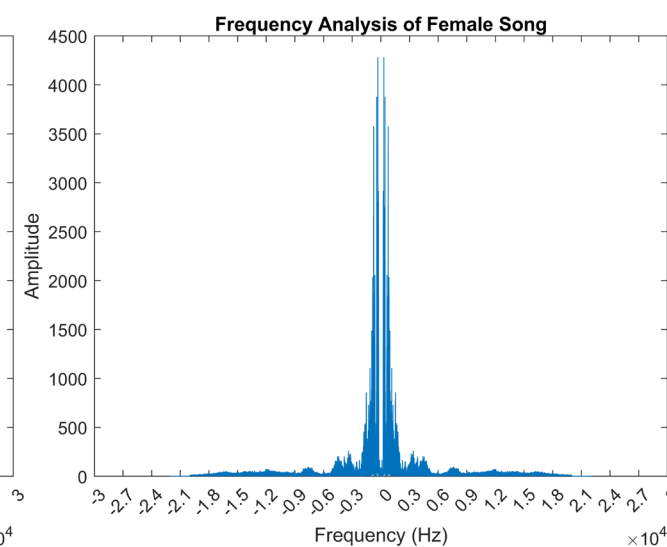
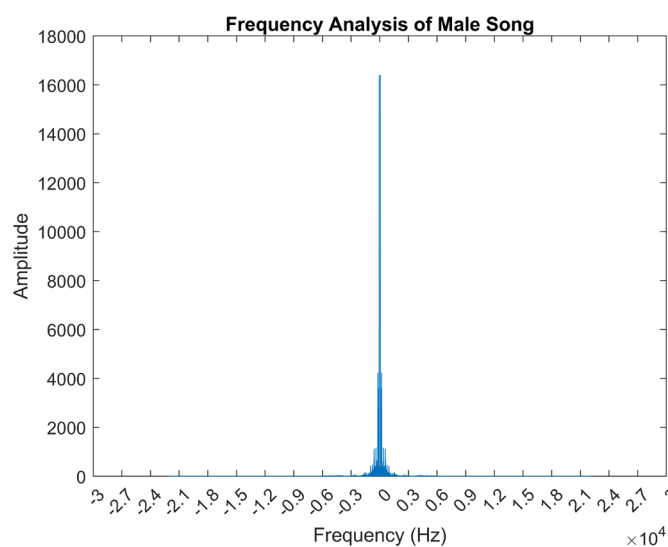
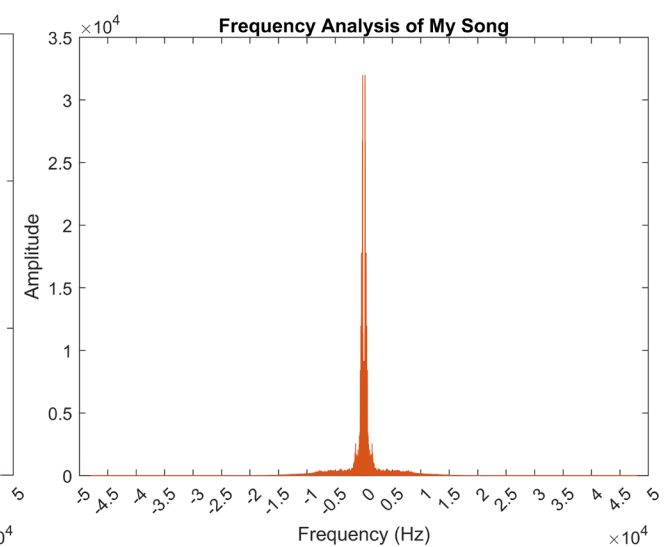
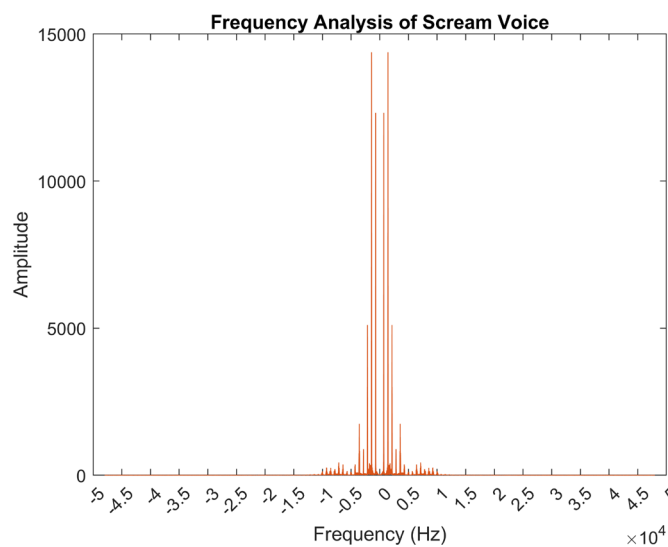
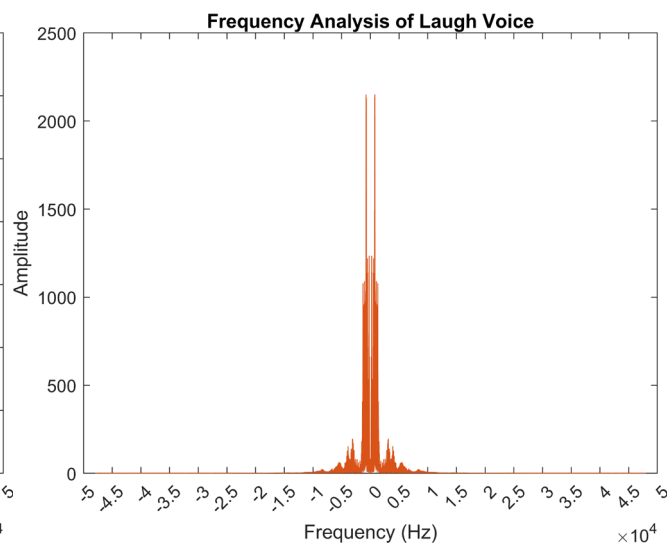
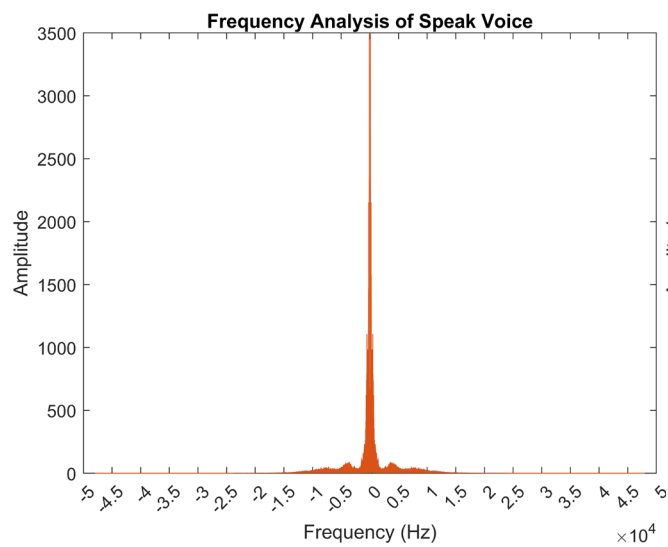
Time Domain Analysis



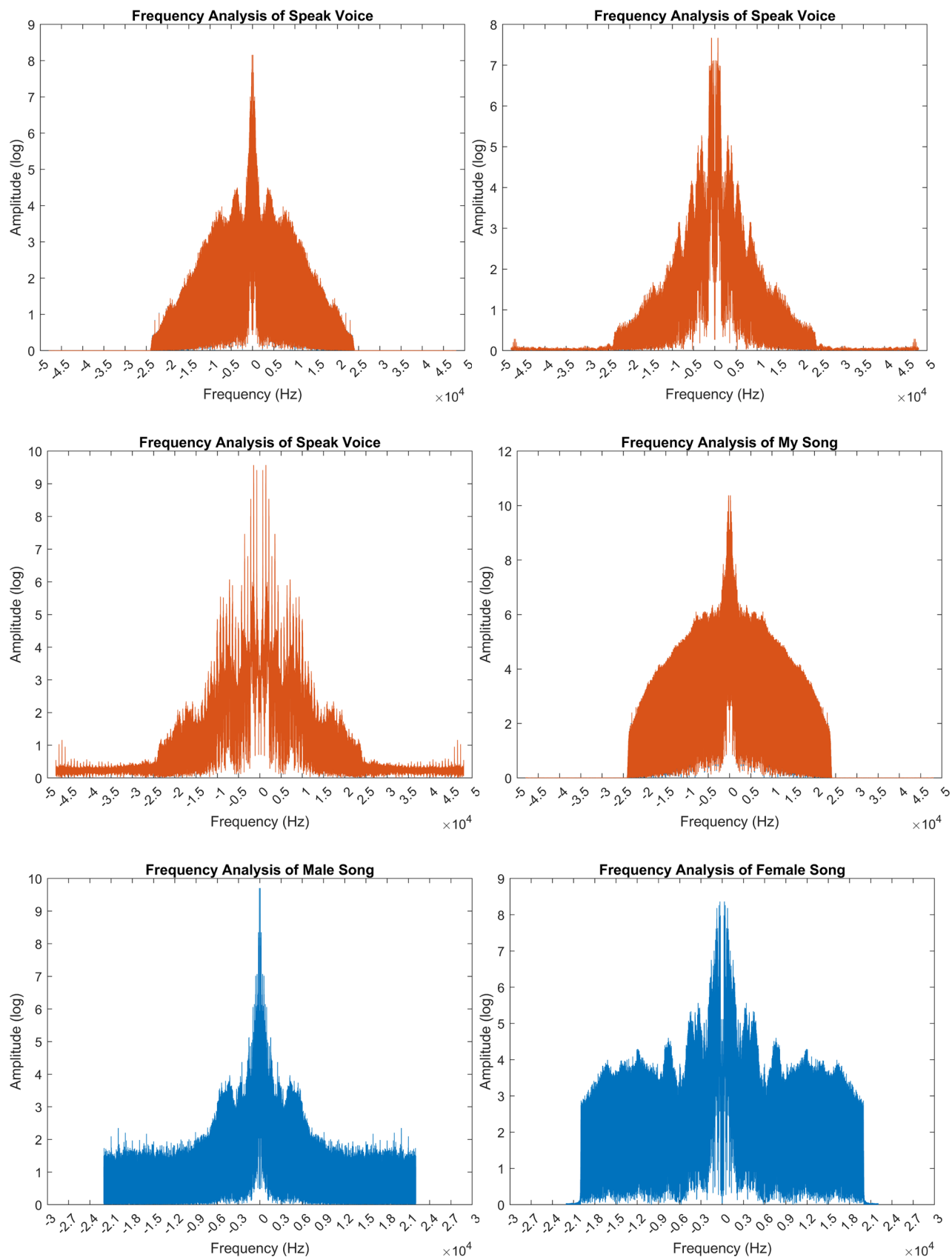
Spectrogram



Frequency Analysis



Frequency Analysis (taking logarithm)



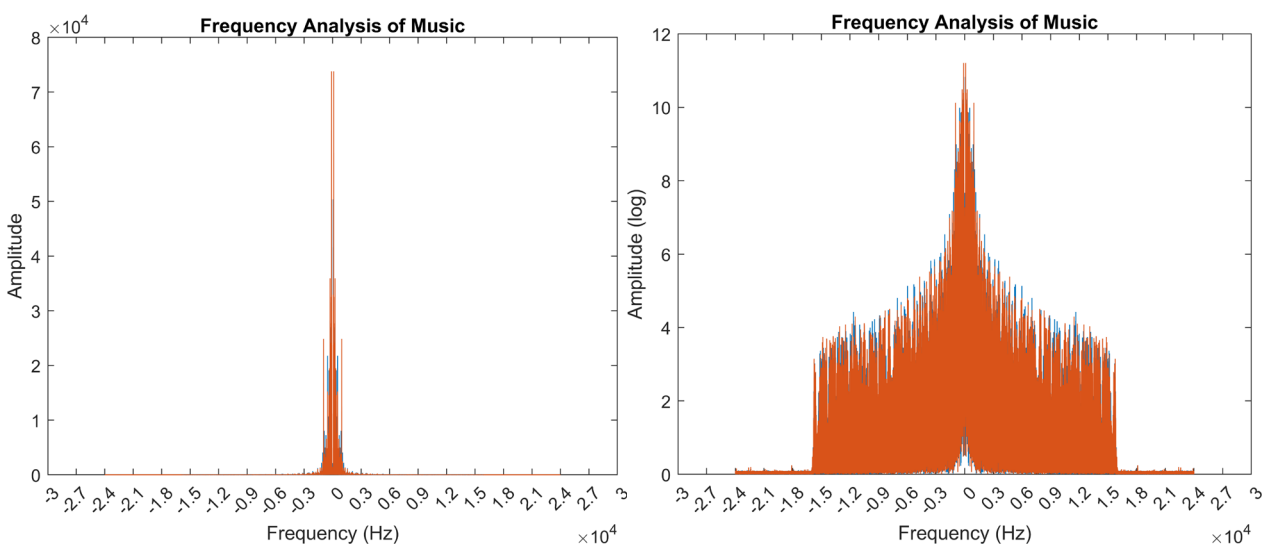
語聲、噪聲、歌聲在不同 domain 中的觀察

- Time domain
 - 尖叫聲顯然較為密集
- Spectrogram
 - 尖叫聲分布最均勻
- Frequency domain
 - 尖叫聲幾乎每種頻率都有分布
 - 女生的聲音分布比男生傾向於高頻率

Earth Mover's Distance (EMD)

我一直 out of memory，算不出來

分析 936Hz - Clear Your Mind _ Healing Tone - Boost Positive Energy - Third Eye Activation _ Solfeggio



分析結果為，936 Hz 並不是整首音樂的主要成分