FREQUENCY COMPRESSION
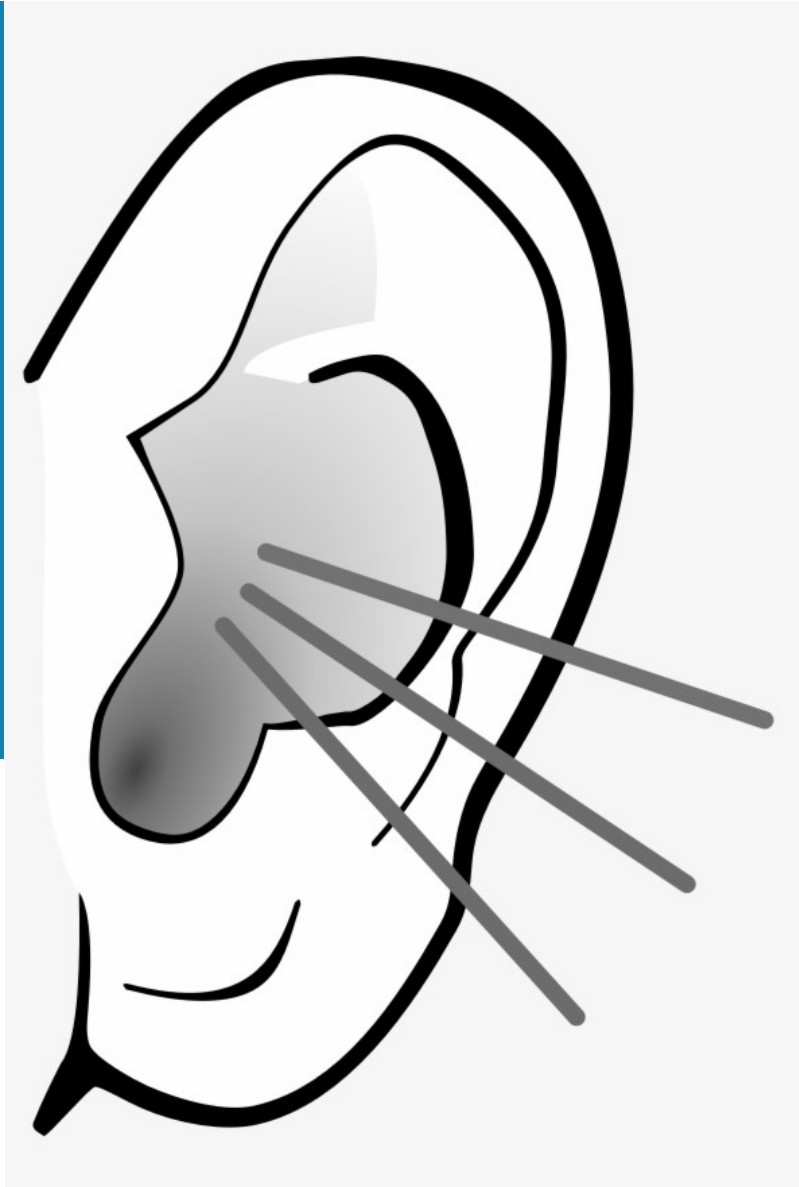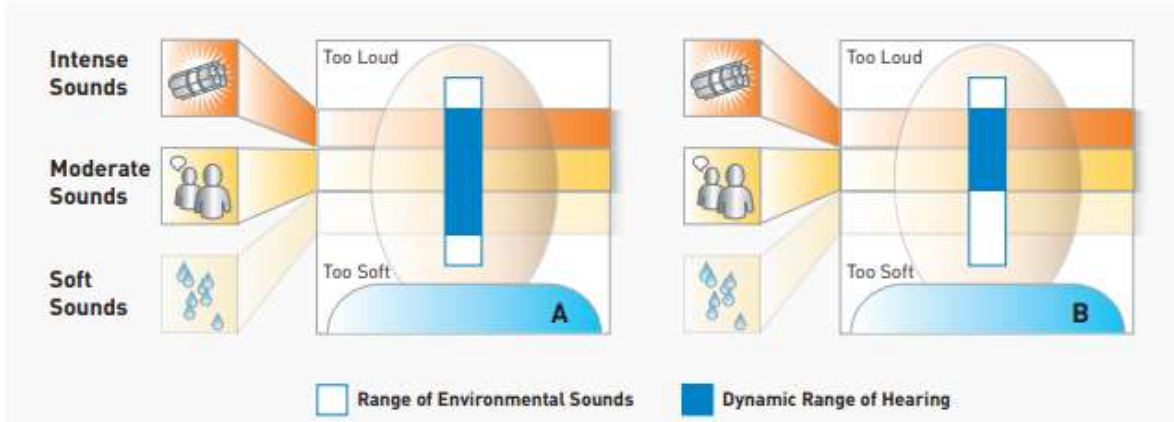
Lily Wang

WHAT IS IT

High frequency hearing loss

Take the high frequencies and lower them

Maintain the speed and intonation
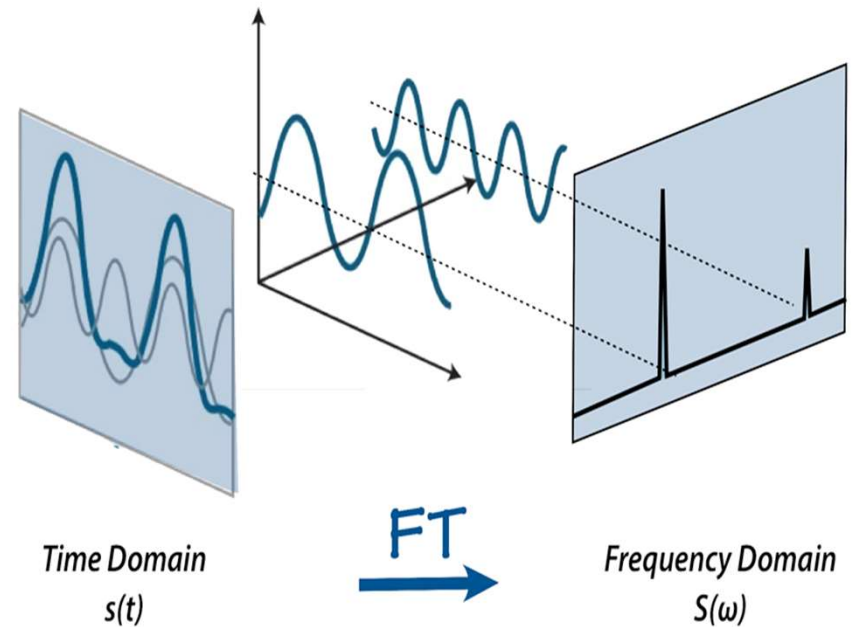

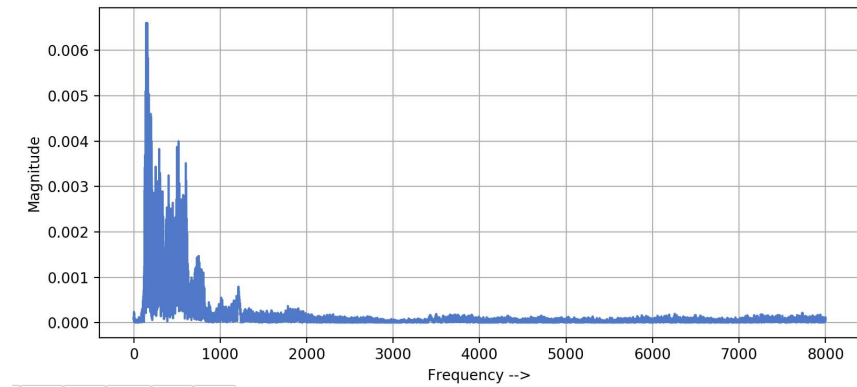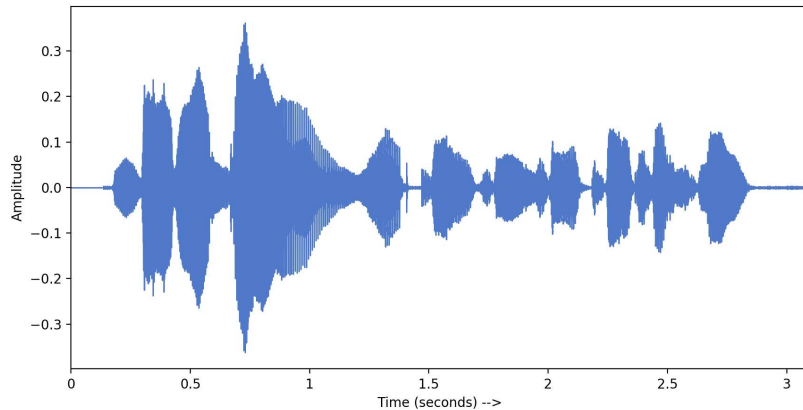|		Too Loud		Too Loud
Intense Sounds				
Moderate Sounds				
Soft Sounds		Too Soft **A**		Too Soft **B**

☐ Range of Environmental Sounds   ■ Dynamic Range of Hearing

HOW?

Take audio input in as a soundwave or .wav file
- Time domain

Transform into frequency domain
- FFT

Time Domain
s(t)

FT

Frequency Domain
S(ω)

But you lose time information.

- Small blocks for FFT
- Spectrograms

Change frequencies to audible range

Output

CHALLENGES AND EXTENSION

Intelligibility

Delay

Noise cancelling

Being able to change ranges for individuals