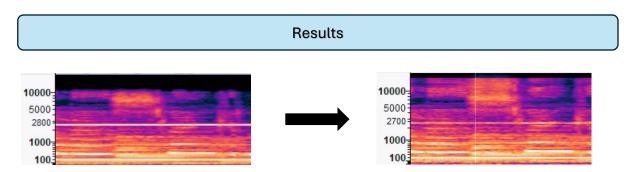
# **AUDIOSR**

## Niv Aharon Cohen, Michael Berger

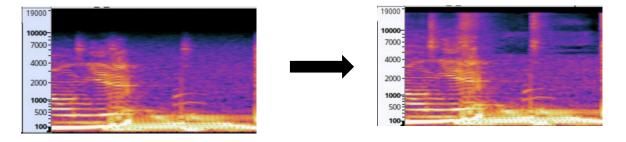
### Project goals

- Convert low-resolution audio to high-resolution audio using the AUDIOSR model.
- Denoise audio by removing noise types such as single-tone and white noise using the AUDIOSR model with small improvements.

# Condition path Low resolution audio + noise Single Tone Noise Single Tone Noise Single Tone Noise Concatenate Latent Diffusion VAE Decoder VAE Encoder VAE Encoder



The model predicts higher frequencies in low-resolution audio and reduces single-tone noise.



The model predicts higher frequencies in low-resolution audio and try to reduce white noise.

### Conclusions

- The model showed positive results in noise removal, even with low-resolution audio.
- It was more effective at reducing single-tone noise compared to white noise, likely due to longer training on single-tone noise.
- The model is versatile and, with minor adjustments, can be adapted to handle additional features and various types of noise.