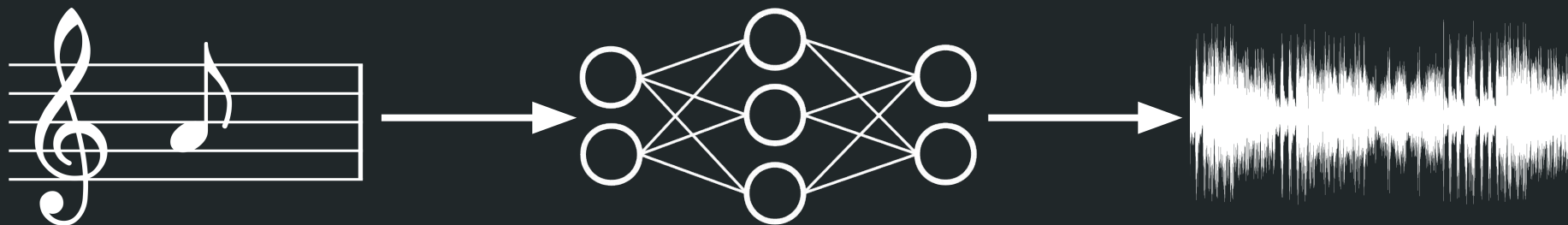


# MusicalDL: CHORAL VOICE SYNTHESIZER

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# MOTIVATION

## Necessity

- ❖ Tool for composers, musicians, commercials/TV, etc.

## Current Approaches

- ❖ Formant vs concatenation synthesizers

## Benefits of Deep Learning

- ❖ Unique timbre of human voice
- ❖ Deep Learning picks up subtleties
- ❖ SOTA for Text-to-Speech (i.e. WaveNet)



# APPROACH

## Training Dataset:

- ❖ Recorded voice audio {Pitch, Tone, Syllables, Volume}
- ❖ Spoken text (LibreSpeech), formant synthesizer
- ❖ Data Augmentation

## Architecture:

- ❖ Modified WaveNet

## Key Deep Learning Techniques:

- ❖ Transfer Learning, Self-supervised learning (Automatic Algorithms)
- ❖ Layer parameter tuning

