

bensauj

Group 12
Janet Li

Concept

Nujabes

- “Godfather” of lo-fi genre
- Pioneered distinct style of hip hop, soul, and jazz in the late 2000s
- Music incorporated elements of trip hop, breakbeat, downtempo, and ambient music, with some pieces including rap

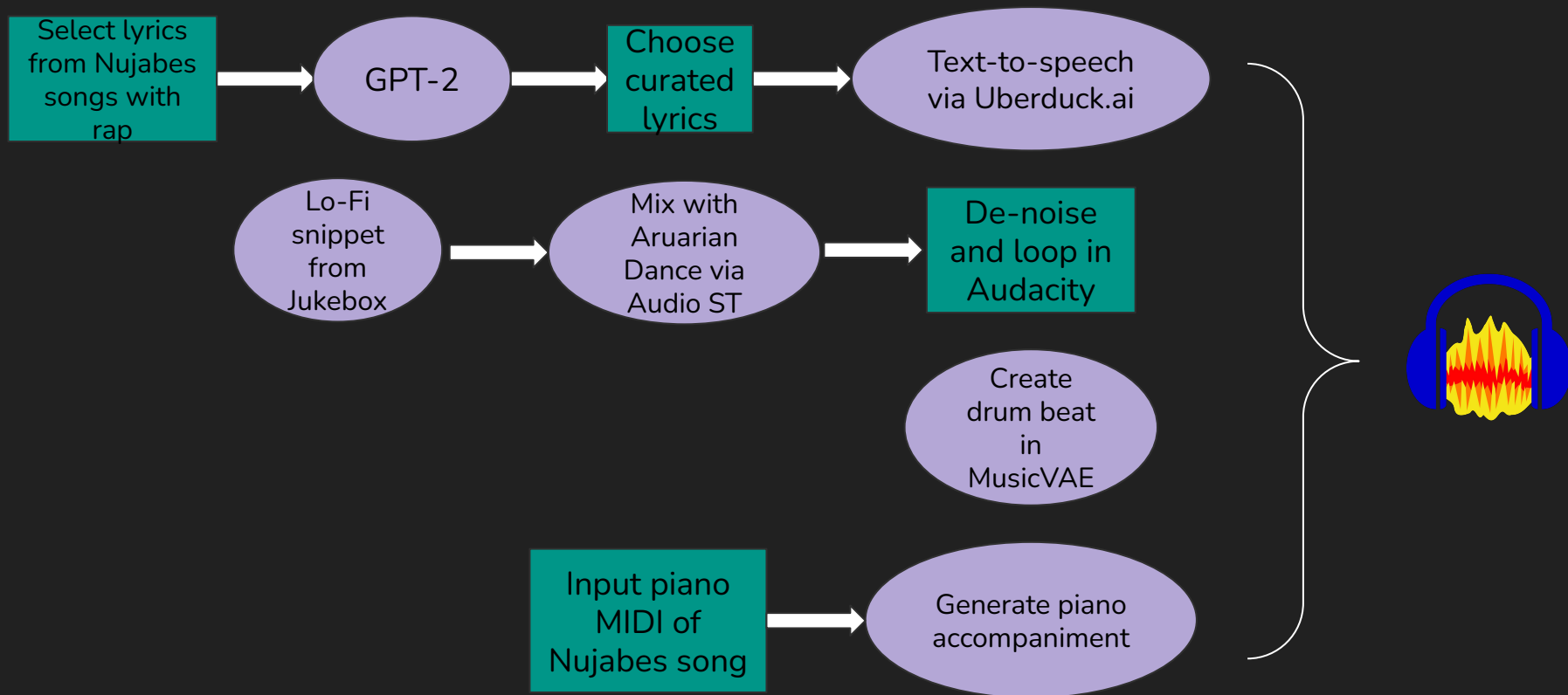


Lady Brown (ft.
Cise Starr)



Aruarian Dance

Technique Overview



Process - Rap

Lyrics of Nujabes songs with rap (minus explicit/inappropriate lines)

- Nujabes - Thank You (ft. Apani B)
- Nujabes feat. Shing02 - Luv(sic) Part 4 - 2011
- Nujabes - luv (sic.) pt 3 (ft.shing02)
- Nujabes - Waiting For The Clouds (Feat. Substantial)
- Nujabes - Feather
- Nujabes - Lady Brown (ft. Cise Starr)



GPT-2

Find good + rhyming
lines

Process - Rap

Unconditional Results from GPT-2

Of the rising sun being high and global
Sophisticating algorithms taking our job
Workers' comp back
Down to earth organising
With no reward for momentous conquests

It'll be oh so so ooooh so kimchi so kimchi
It'll be so so ooooh so kimchi
It'll be so so ooooh so kimchi
It'll be so so ooooh so kimchi
It'll be so so ooooh so kimchi

Her kimchi make me cry

She was in heaven, she was in he
She was in heaven, she was in ve
She was in veg, she veget
She was in veget, she vegie
She was in veg, she she gluttin
In a fit of sunnyside love

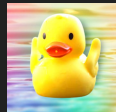
I pop the question, you gotta believe me sheh sheh sheh sheh Shee shee shee shee shee shee shee shee Shee shee shee shee shee Shee shee shee Shee shee

Process - Rap

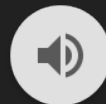
The billboards say it right, but it ain't so
The stars are but a window into the soul of an addict
But you two cannot be made whole
I'm off for a walk with my fix of a past
And I'm blessed with this group of people like me
Dedicated a thousand times to making you happy
It's so hard to find a gig that lives up to the hype
And how could I not get by
It's exactly the opposite of what you were expecting
Hearing all of the hype keeps you going
I was born with everything



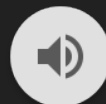
(via IMS-Toucan)



(via Uberduck.ai)



Lil Jon



Pusha T

- Not aggressive
- Articulate

Process - Instrumentals



Choose your artist, genre, and lyrics here!

```
[ ] total_sample_length_in_seconds = 120
    metas = [dict(artist = "Nujabes",
                  genre = "Lo-Fi",
                  total_length = total_sample_length_in_seconds * hps.sr,
                  offset = 0,
                  lyrics = "",
                  ),
              ] * hps.n_samples
    labels = top_prior.labeller.get_batch_labels(metas, 'cuda')
```

The code snippet shows a list of dictionaries for the 'metas' parameter. The 'artist' is 'Nujabes', 'genre' is 'Lo-Fi', and 'lyrics' is an empty string. A red 'X' is next to 'Nujabes', a green checkmark is next to 'Lo-Fi', and a red arrow points to the empty 'lyrics' string.

Lyrics from OpenAI's Jukebox
were too garbled

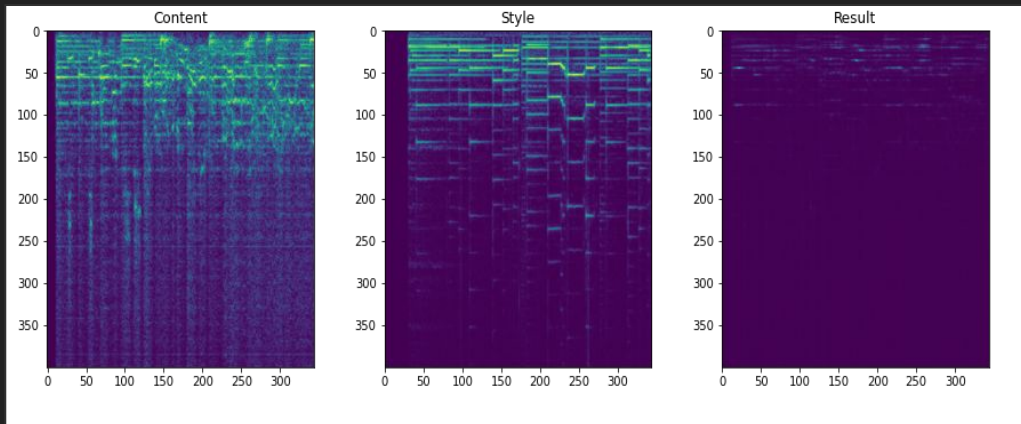
Results:



Remove
vocals in
Audacity,
de-noise

Process - Instrumentals

Audio Style Transfer



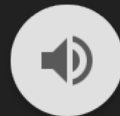
Alpha: 0.02
Learning Rate: 0.002
Iterations: 200

Content: Jukebox Lo-Fi Result

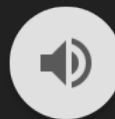
Style: (Nujabes) Aruarian
Dance



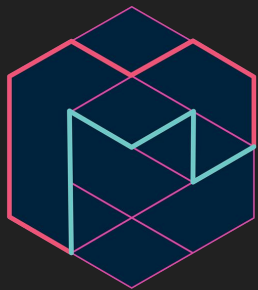
Result:



Looping +
De-noising +
Wet reverb +
Remove vocals



Process - Beat



magenta

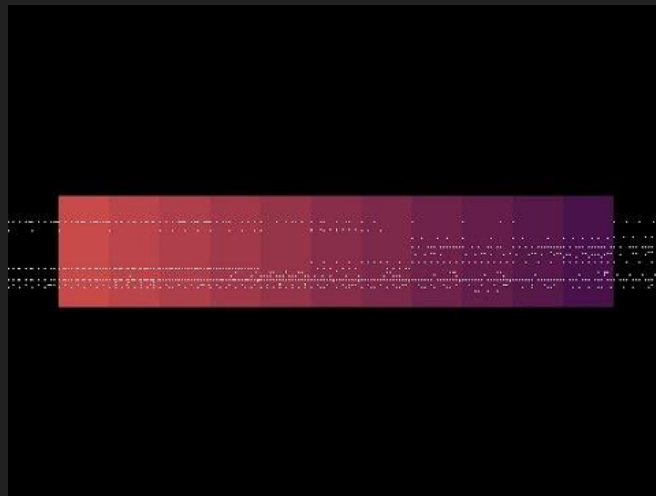
- Hierarchical
- Recurrent
- Variational
- Autoencoder
- Learns latent spaces for musical scores



2-Bar Drums Model
drums_2bar_oh_lokl



+ later tempo, pitch,
clip removal in
Audacity



Process - Piano

Generating Piano Music with Transformer

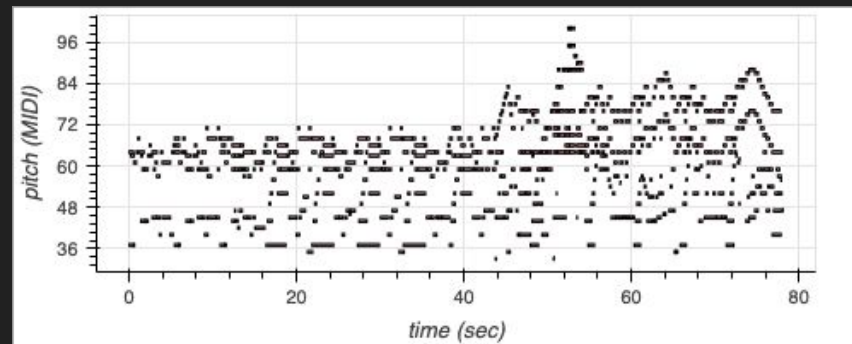
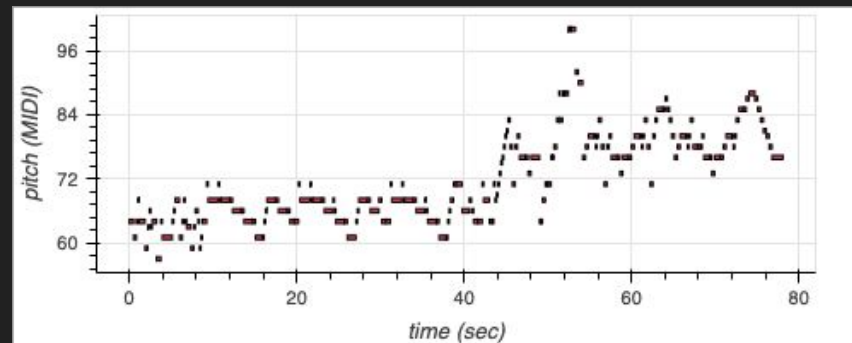
- Melody-Conditioned Piano Performance with MIDI Files

Nujabes - Another Reflection

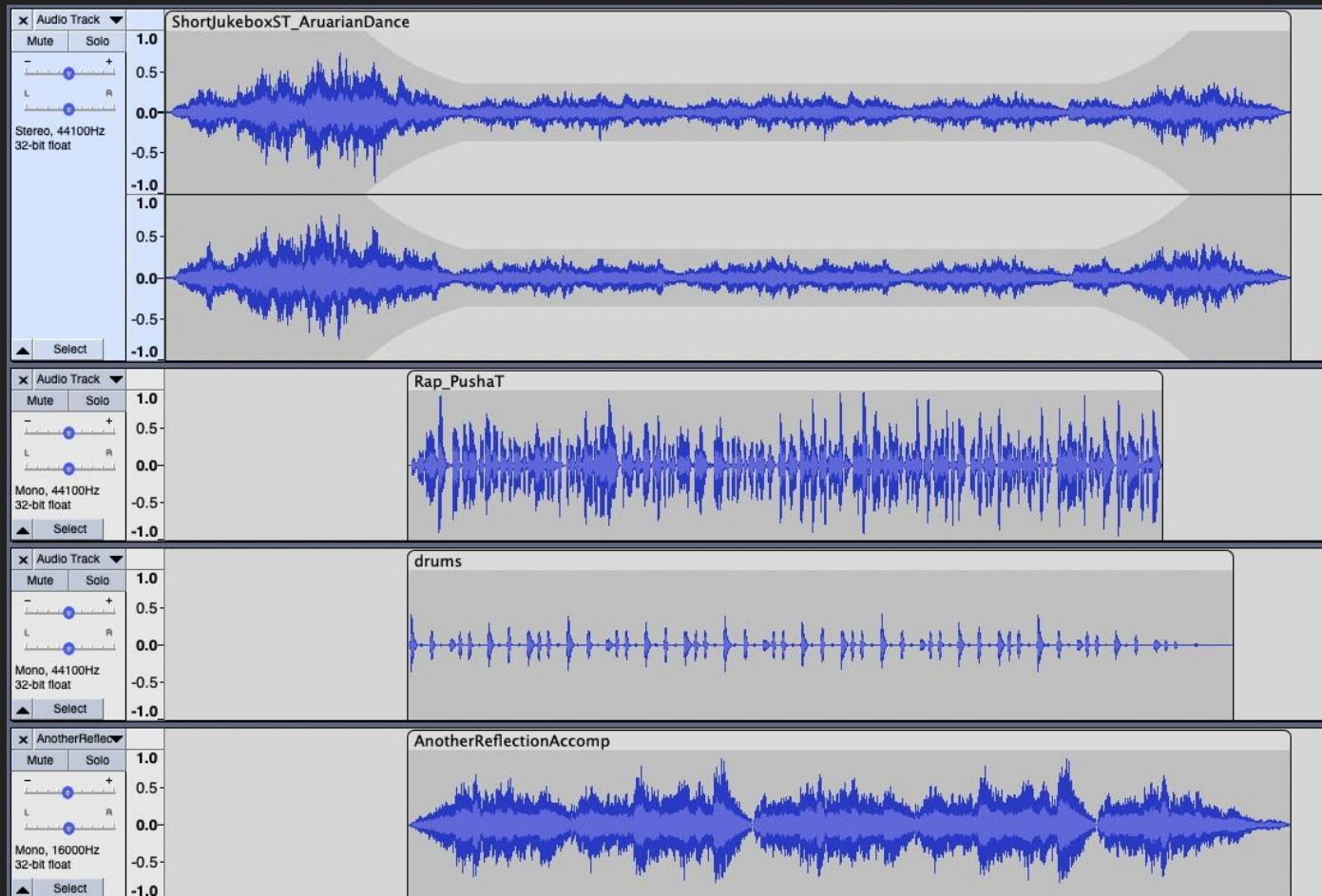
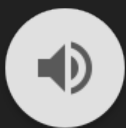


Pitch, tempo, wet
reverb, looping

Result:

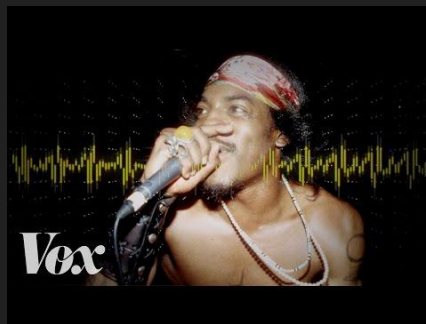


Result



Reflection

Rap is hard to generate! ([Vox video on rapping](#))



- *Good* rap is even harder to generate

More generally, *music* is hard to generate, particularly more so than art/pure text

- Music is inherently human? ([MIT Human Brain: Music](#))

Human-made music >>>>>

Cleaner when generating musical components separately

Computational limits



thank you!

