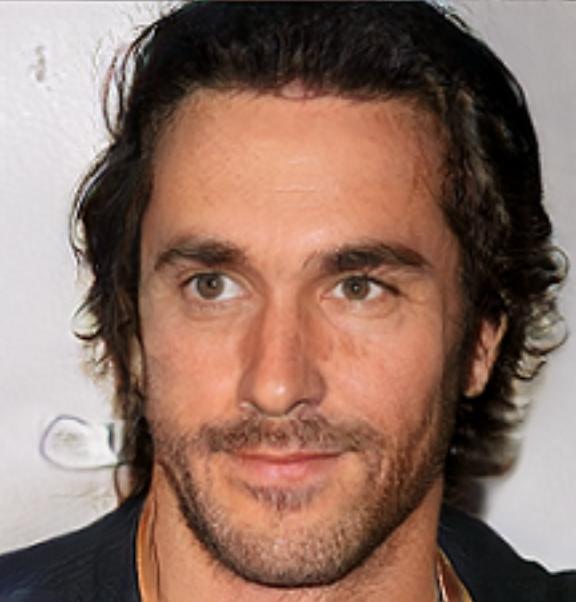


Generative Adversarial Networks

GANs



Generative Adversarial Networks

GANs

Generative Adversarial Networks

GANs

**Generative
Algorithms**

**Discriminative
Algorithms**

Generative Adversarial Networks

GANs

**Generative
Algorithms**

**Discriminative
Algorithms**

Label



Features

Generative Adversarial Networks

GANs

**Generative
Algorithms**

**Discriminative
Algorithms**

Label —————→

Features

Generative Adversarial Networks

GANs

Generator

Discriminator

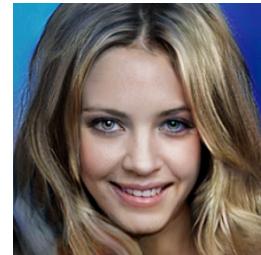
Generative Adversarial Networks

GANs

Generator



Discriminator

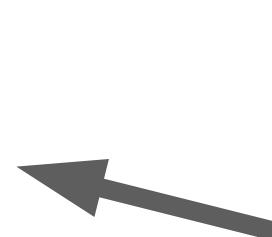


Generator



Discriminator

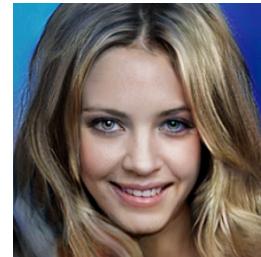
legit
fake



Generative Adversarial Networks

GANs

Generator



Discriminator

legit
fake

A grey arrow pointing left from the word "legit", with the word "fake" in a lighter shade of grey positioned below it, indicating the discriminator's classification of the generated image.

ThisPersonDoesNotExist.com









Ethical Considerations

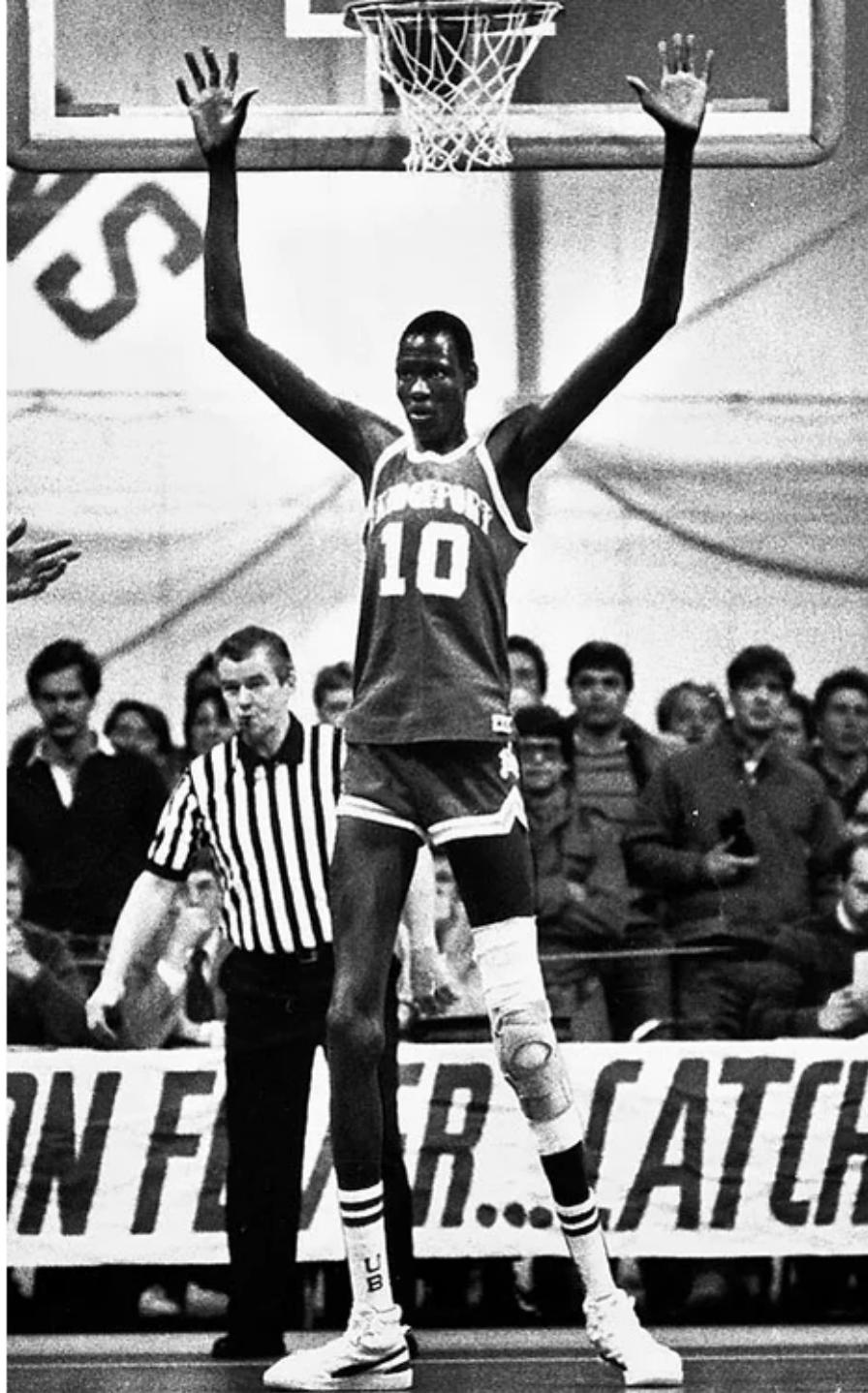
Human Genome



A Person's Genome









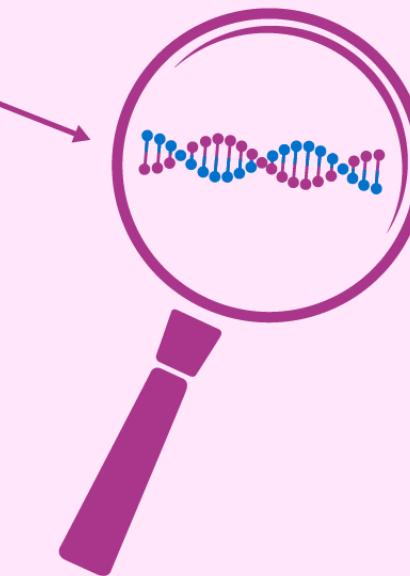
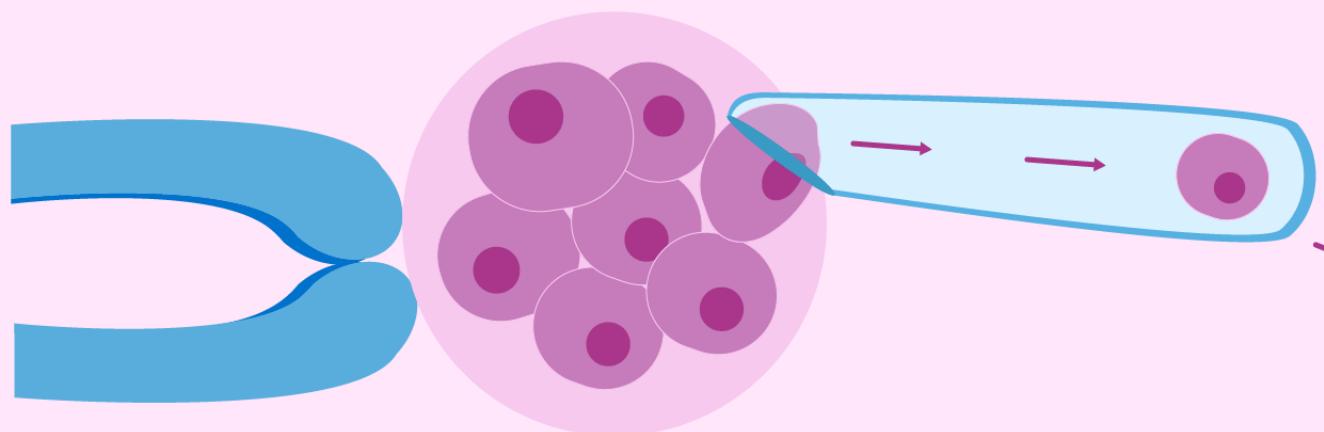
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G T A C G T G T G C C T A C T G A G T T C C C T G G A A C G G G A C C G
G T A C G G G T G C C T A C T G A G T T C C C T G G A A C G G G A C C G
A G G G T G A G A G G C C C C G T C T G G T A G G A C A C C A G C C C G
G T G C G G G T T C C T T C C G A G T T C C C T G G A A C G G G A C C G
G G G T G C G G G T T C C T T C C G A G T T C C C T G G A A C G G G A C C G
G T T A T G G T T C C T T C C G A G T T C C C T G G A A C G G G A C C G
A C C T T A C T A C A T G G A T A A C C G T G G T A A T T C T A G A G C G
C C C T G G A A C G G G A C G C C A T A G A G G G T G A G A G C C C C G
G T G C G G G T T C C T T C C G A G T T C C C T G G A A C G G G A C C G
A G T T C C C T G G A A C G G G A C G C C A T A G A G G G T G A G A G C C
A A T T T G A A A T C T G G G C T C C T T C G G G G C C G A G T T C A A
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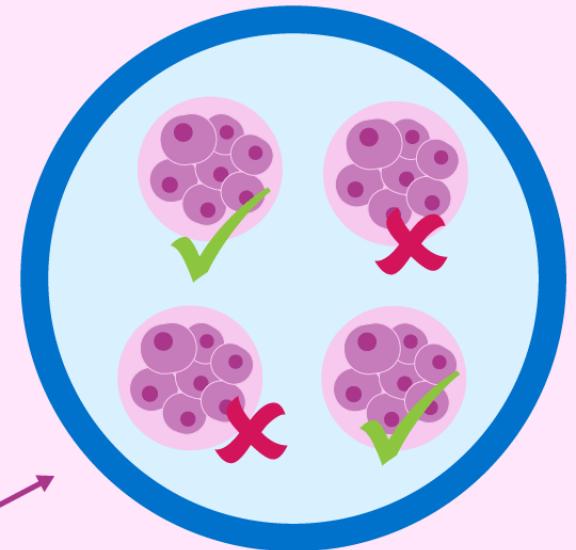
In Vitro Fertilization



Embryo biopsy



Genetic testing
of embryos







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Discover Weekly

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Created by: Spotify • 30 songs, 2 hr 48 min

PLAY

FOLLOWING

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FOLLOWER

1

Q Filter

Download

SONG	ARTIST	ALBUM	L	L
+ The Sky out of Your Window	Melorman	Waves	4 days ago	3:21
+ You Have Love	Axel Thesleff	You Have Love	4 days ago	7:21
+ You're Still In It	Chihei Hatakeyama	You're Still In It	4 days ago	18:26
+ Morning Mountain	Essay	Morning Mountain	4 days ago	6:42

Word Embeddings for Music Tags				
		Indie Alternative	Rock Group	Brilliant
Diva		Party	Live Concert	Superb Excellent
Singer	Remix	Dance	Duet Collaboration	Amazing
		DJ	Cover Beautiful	Fun
Rap		Beats Bass	Guitar Instrumental	Silly

Example Embeddings from Music Tags

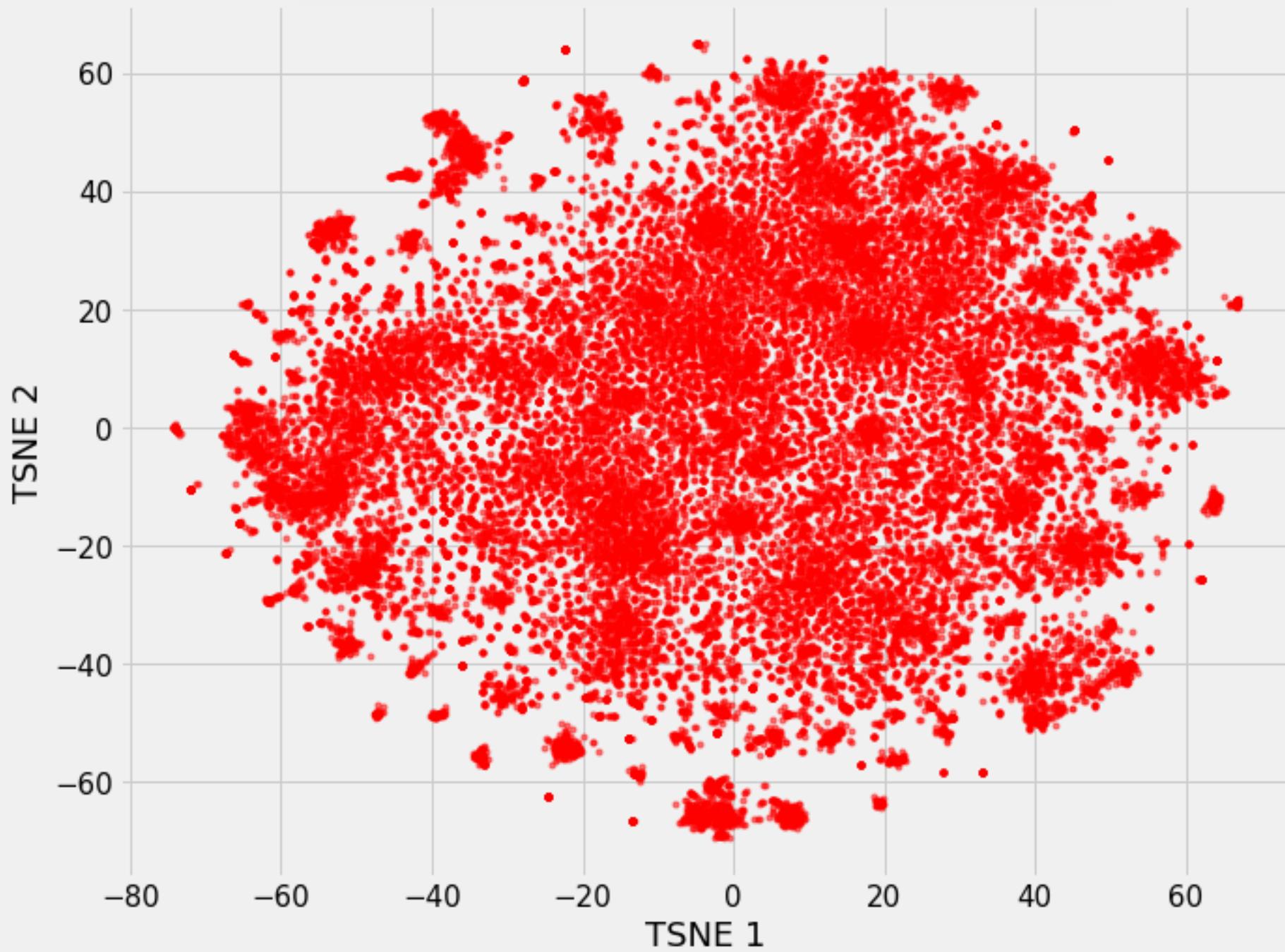
Title	Dim 0	Dim 1	Dim 2	...	Dim 27	Dim 28	Dim 29
Song 1	0.75363592	-0.88454969	-0.51550202	...	0.71142774	-0.69804874	-0.69929225
Song 2	-0.17851753	-0.87937651	-0.81126722	...	0.53796693	-0.72321122	-0.02912803
Song 3	-0.28576539	0.80224953	0.43486201	...	-0.88530472	-0.97953457	-0.31881182
Song 4	0.24254108	0.41155523	0.18854532	...	-0.10086788	-0.36039747	0.15520767

Example Similarity from Music Tags

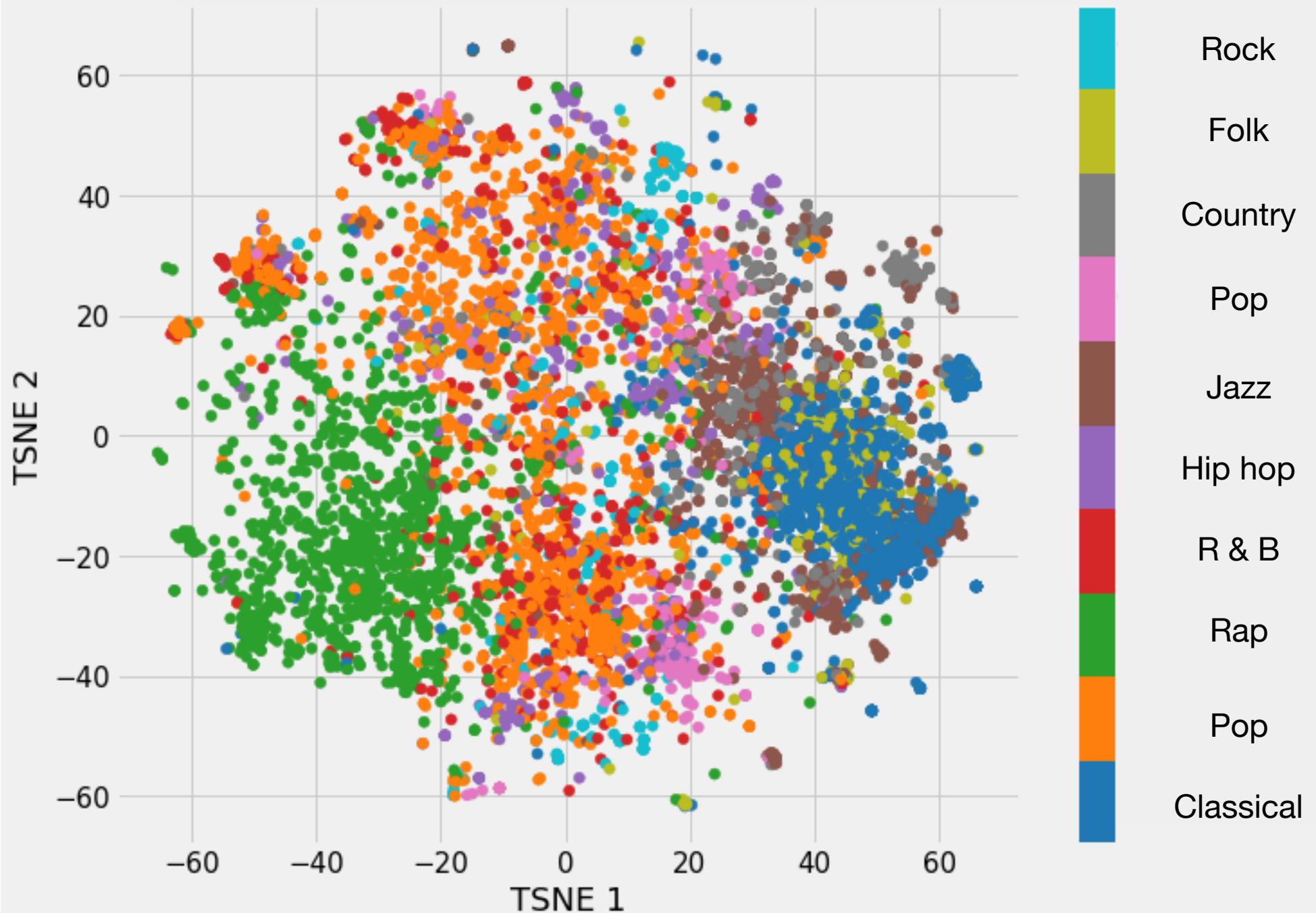
Songs most similar to Song 1

Title	Similarity
Song 1	1.0
Song 2	-0.13
Song 3	0.81
Song 4	0.24

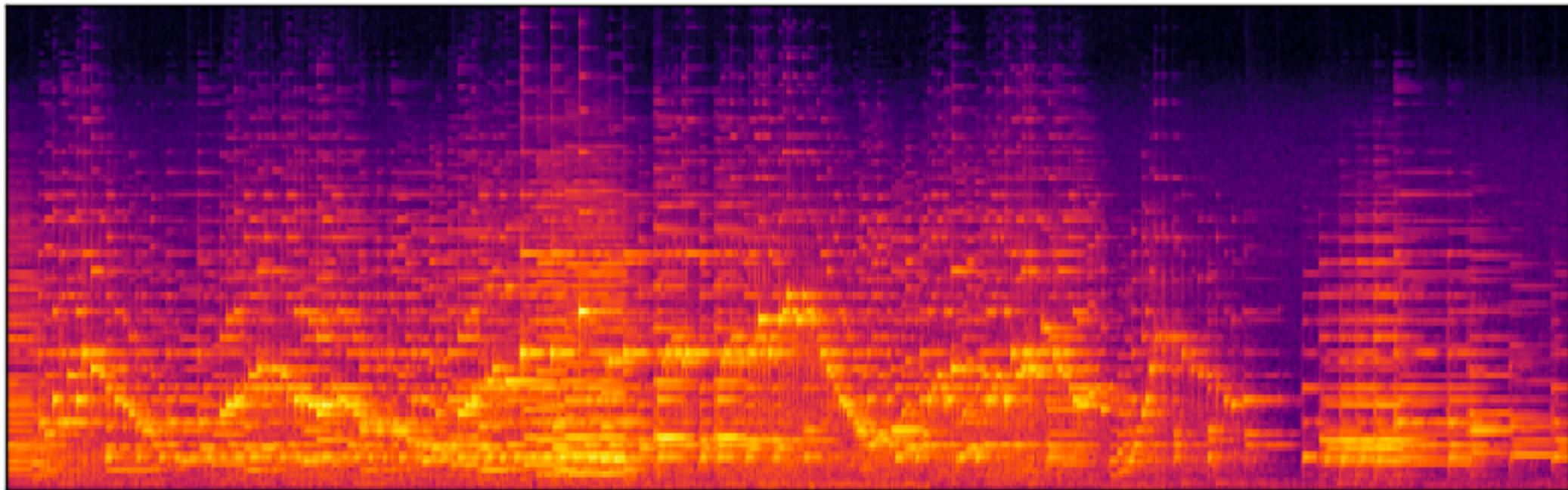
Example Embeddings Visualized

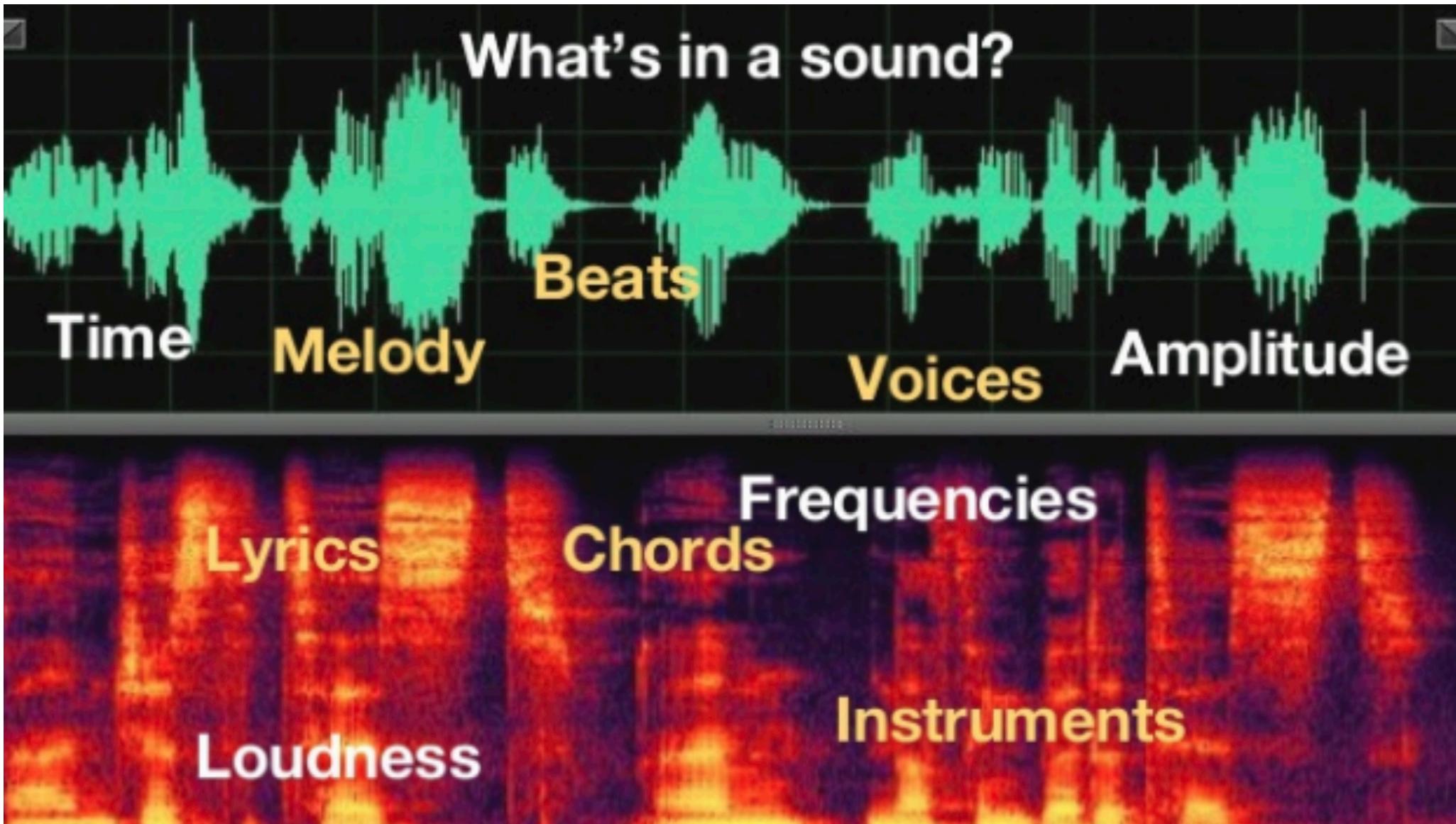


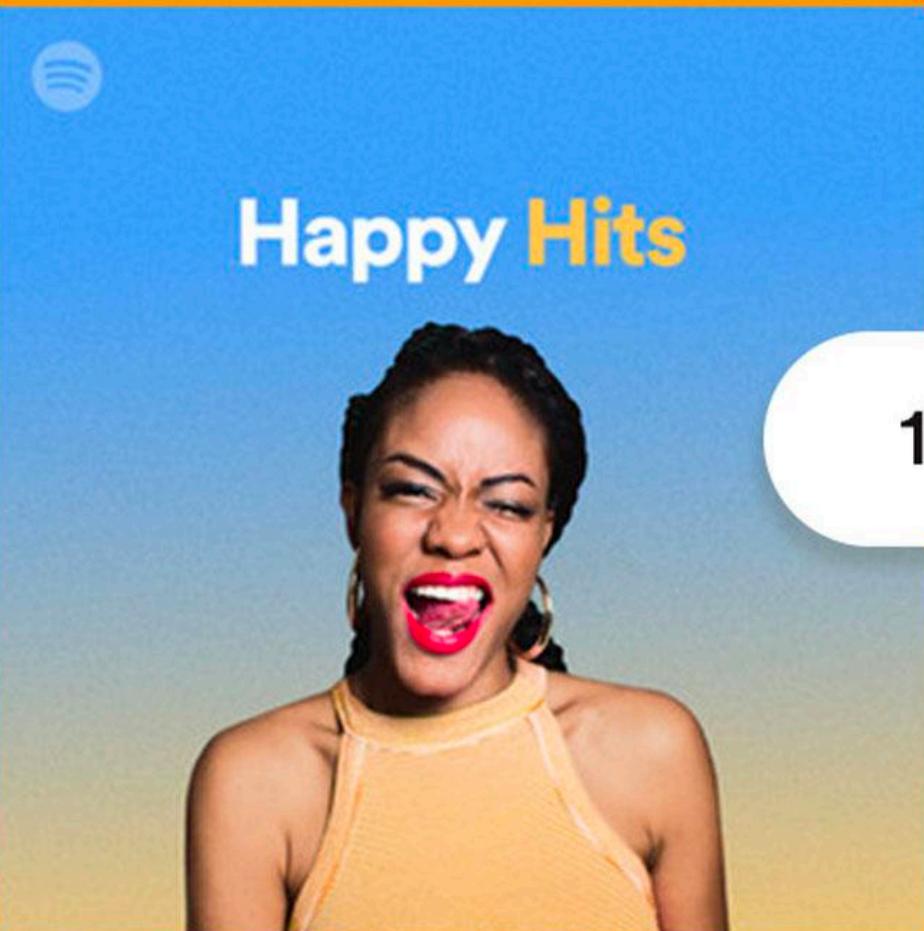
Visualization of Embeddings



Spectrogram







Happy Hits

Playlist by Spotify

1 Your Song

2 [Song Title] - [Artist Name]

3 [Song Title] - [Artist Name]

4 [Song Title] - [Artist Name]