Report Shazam

Introduction

This package aims to recognise Tina Turner songs based on the user's input. It is based on the familiar app 'Shazam'. However, the current package is a small scale version of it. It is a proof of concept that with the use of short time fourier transformation, it is possible to predict what song a snippet is part of.

Installation

The current package can be used by cloning the github repository. The Dash app can be reached by running the user_interface.py.

In [ ]:
```
pip install https://github.com/Programming-The-Next-Step-2023/Shazam/tree/main
```

Example

In [5]:
```
from IPython.display import Image, display
display(Image(filename='assets/example_dash.png'))
```

Predicted Song

PrivateDancer.wav

Input File

PrivateDancer_snippet.wav

Upload File

Dataframe Matches

Song	Match
BetterBeGoodToMe.wav	3193864
GoldenEye.wav	3473936
ICantStandtheRain.wav	3294100
IDontWannaLoseYou.wav	3709592
LetsStayTogether.wav	3566432
PrivateDancer.wav	23916
ProudMary.wav	3073328
TheBest.wav	3489744
WeDontNeedAnotherHero.wav	3709180
WhatsLoveGotToDoWithIt.wav	4295536

The user can upload a file through the 'upload file' button. Then the program will load and the package will return the predicted song and the match scores for every song in the package database.

Limitations

- this package is only able to take .wav files as input
- this package can only predict the songs in the database well. NOt all songs of Tina Turner are in there.
- this package can not record songs that play in the room. Only snippets of the actual song predict well. Possibly good recordings of snippets will function well.