

After much deliberation I have an idea

Well, two ideas

At first I wanted an interactive data visualization
and soley that

Then I realized what my heart of hearts wanted:

One App

One part
visual

One part
data centric

Both parts **AWESOME**

Ok dude hear me out

For the visual part I want to make a mosaic of the user's face made up of personal playlists/recently listened to albums.

There is something philosophical pleasing about different albums that may clash when they are compared one to one coming together to make up someone's portrait, on a physical level and personality level

And we can be creative about it

We have a python library to handle the Spotify Web API

📖 README.md

Spotipy - a Python client for The Spotify Web API

Description

Spotipy is a thin client library for the Spotify Web API.

Documentation

Spotipy's full documentation is online at [Spotipy Documentation](#).

Installation

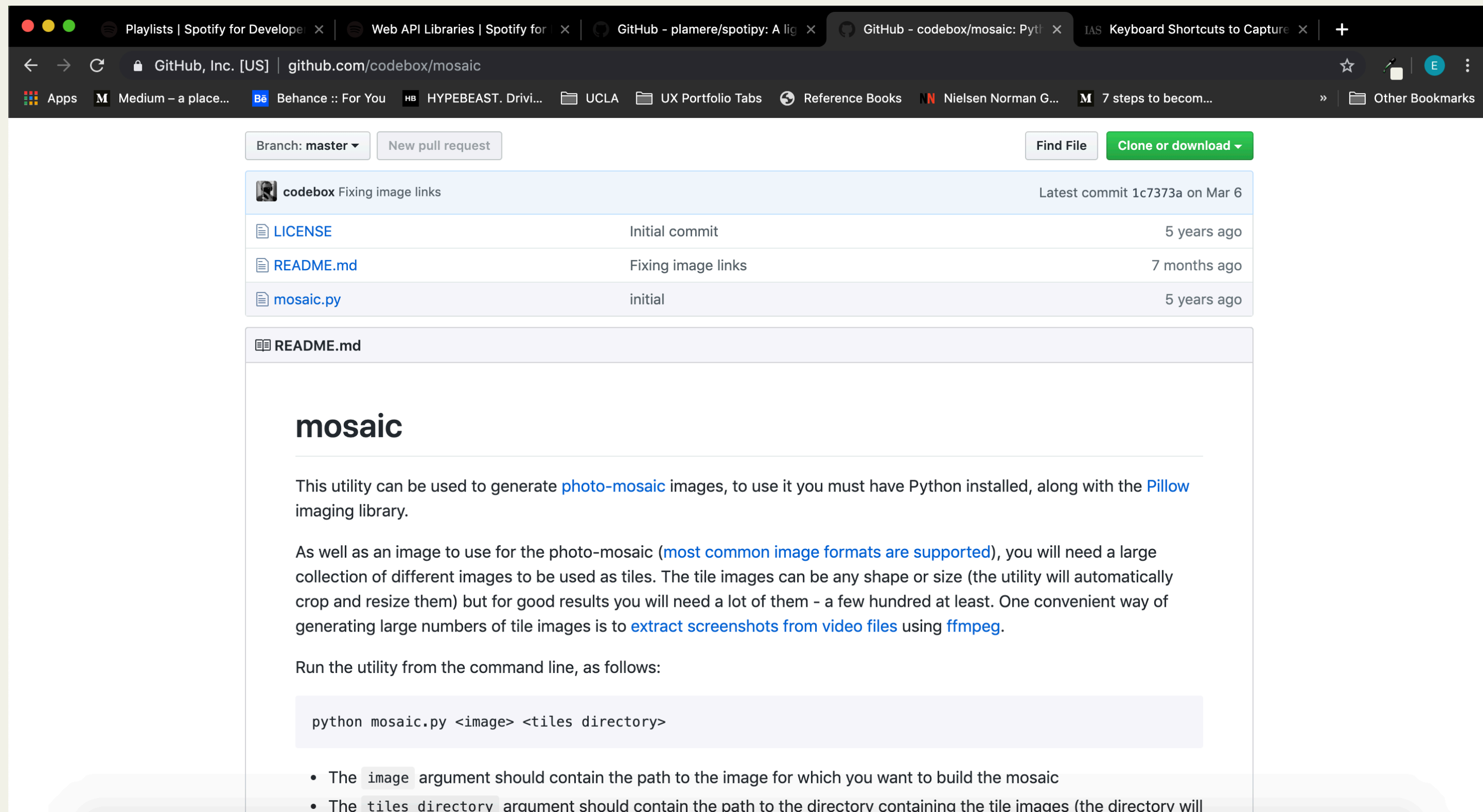
If you already have [Python](#) on your system you can install the library simply by downloading the distribution, unpack it and install in the usual fashion:

```
python setup.py install
```

You can also install it using a popular package manager with

```
pip install spotipy
```

Staying with python, we also have a python library that can make mosaics



Branch: master ▾ New pull request Find File Clone or download ▾

codebox Fixing image links Latest commit 1c7373a on Mar 6

LICENSE	Initial commit	5 years ago
README.md	Fixing image links	7 months ago
mosaic.py	initial	5 years ago

README.md

mosaic

This utility can be used to generate [photo-mosaic](#) images, to use it you must have Python installed, along with the [Pillow](#) imaging library.

As well as an image to use for the photo-mosaic ([most common image formats are supported](#)), you will need a large collection of different images to be used as tiles. The tile images can be any shape or size (the utility will automatically crop and resize them) but for good results you will need a lot of them - a few hundred at least. One convenient way of generating large numbers of tile images is to [extract screenshots from video files](#) using [ffmpeg](#).

Run the utility from the command line, as follows:

```
python mosaic.py <image> <tiles directory>
```

- The `image` argument should contain the path to the image for which you want to build the mosaic
- The `tiles directory` argument should contain the path to the directory containing the tile images (the directory will

<https://github.com/codebox/mosaic>

What do I mean when I say we can be creative about it?

The Spotify API documentation has all these different parts of a user's profile we can access:

Player	Library	Personalization
Get a User's Available Devices	Check User's Saved Albums	Get a User's Top Artists and Tracks
Get Information About The User's Current Playback	Check User's Saved Tracks	
Get Current User's Recently Played Tracks	Get Current User's Saved Albums	
Get the User's Currently Playing Track	Get a User's Saved Tracks	
Pause a User's Playback	Remove Albums for Current User	
Seek To Position In Currently Playing Track	Remove User's Saved Tracks	
Set Repeat Mode On User's Playback	Save Albums for Current User	
Set Volume For User's Playback	Save Tracks for User	
Skip User's Playback To Next Track		
Skip User's Playback To Previous Track		
Start/Resume a User's Playback		
Toggle Shuffle For User's Playback		
Transfer a User's Playback		

The app can offer different options for what the mosaic will be based on

The Mosaic

This is something we should talk about:

Is the mosaic static or interactive?

Can the user click on the albums in the mosaic?

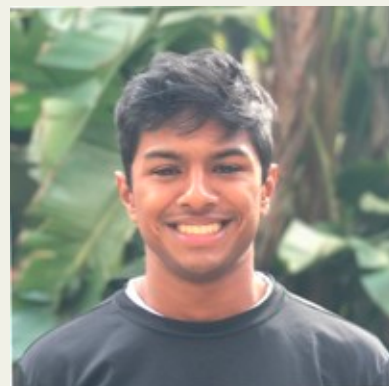
Is it too hard from a programming perspective?

TBD

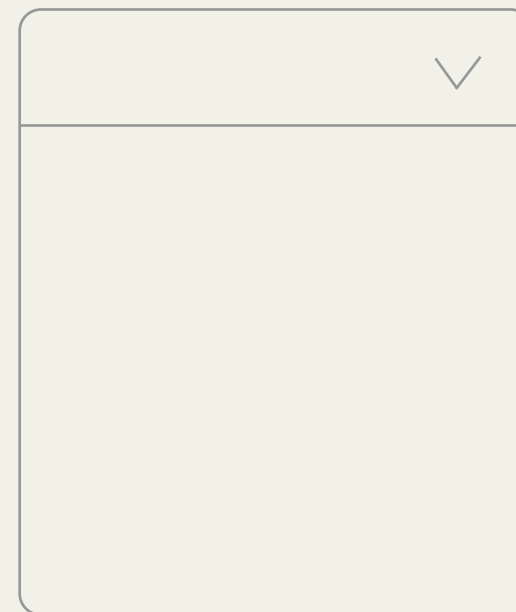
User Flow (for mosaic)



**Link Spotify
Account**



**Upload a
personal
photo**



**Select what
your mosaic will
focus on**



Mosaic Complete

Part II

Don't worry Ram

I didn't forget about your goal:
Data Visualization

So I was combing through the Spotify API recently and I came across something interesting:

WEB API

QUICK STARTGUIDESLIBRARIESREFERENCE

API ENDPOINT REFERENCE

AlbumsArtistsBrowseFollowLibraryPersonalizationPlayerPlaylistsSearchTracksGet Audio Analysis for a TrackGet Audio Features for a TrackGet Audio Features for Several TracksGet Several TracksGet a TrackUsers Profile

Psst! Check out our brand-new Web API Reference in beta!
And be sure to tweet us your feedback at [@SpotifyPlatform](#) on Twitter!

Tracks

Endpoints for retrieving information about one or more tracks from the Spotify catalog.

Base URL: `https://api.spotify.com/v1`

METHOD	ENDPOINT	USAGE	RETURNS
GET	<code>/v1/audio-analysis/{id}</code>	Get Audio Analysis for a Track	audio analysis object
GET	<code>/v1/audio-features/{id}</code>	Get Audio Features for a Track	audio features
GET	<code>/v1/audio-features</code>	Get Audio Features for Several Tracks	audio features
GET	<code>/v1/tracks</code>	Get Several Tracks	tracks
GET	<code>/v1/tracks/{id}</code>	Get a Track	track

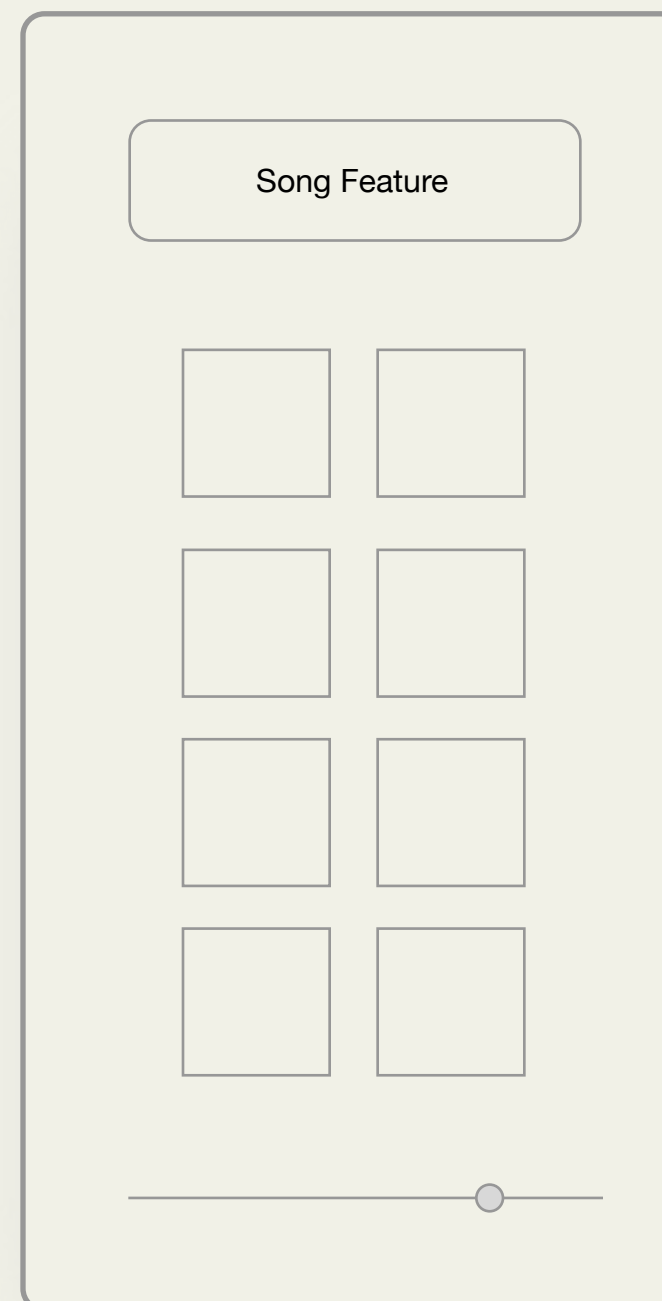
Audio Analysis!!

I don't know about you but I think it would be really cool to be analyze your playlists/ recently listened to songs based on qualities such as beats, tempo, key, acousticness, energy, etc.

All of which are possible through the Spotify API!

I don't have a specific data visualization in mind for this yet

This is a rough idea:



Pick a Song Feature from a dropdown menu

Rectangles are albums

Slider would change display of albums based on changing variable

We could make this social too, where you could compare your songs/playlists with your friends based on these different song characteristics

Ram

I hope this was effective in not only showing you my ideas but also my passion/interest in actually working with you. Please don't hesitate if you have any questions or comments.

Thank you for your time

Eric