

MARMPY

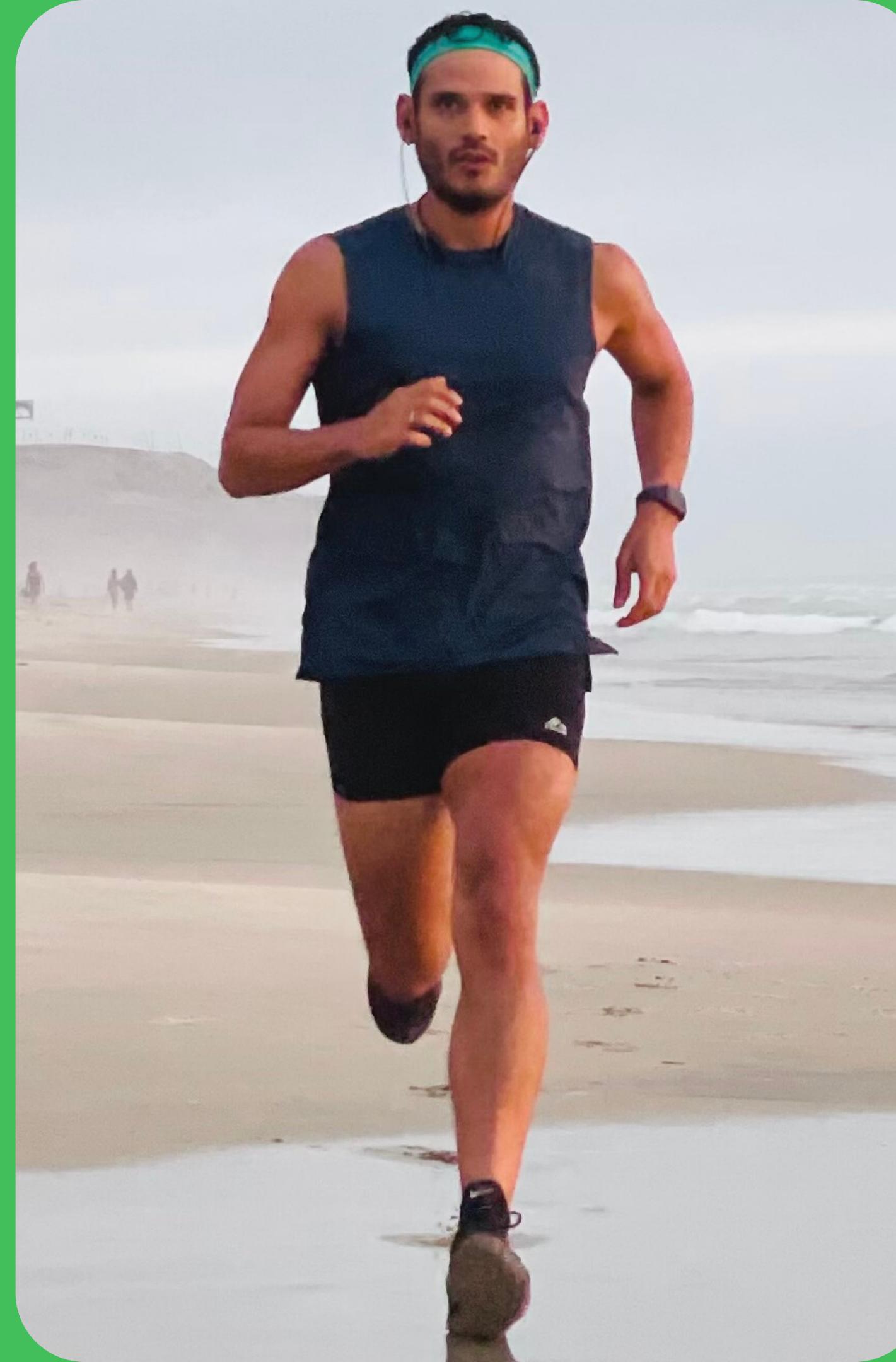


Running with Data Science

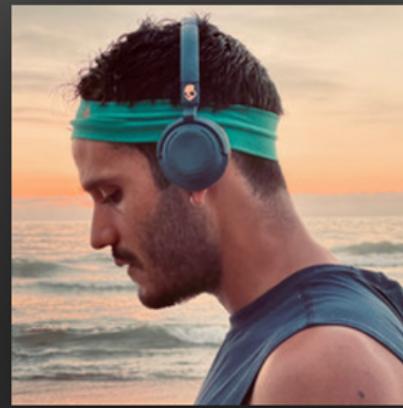
Marathon Music Thru Python

**"I am going to run a marathon
and I will listen to a 5-hour
playlist while I do that".**

- I have grown tired of my own perfectly crafted selection of songs.
- I've used the play-randomly key.
- I've looked for marathon playlists created by others.
- I've let Spotify predict songs for me.



I need many playlists with songs I like, I need the songs to come at the right time during my run, and I need to feel motivated by them.



PUBLIC PLAYLIST

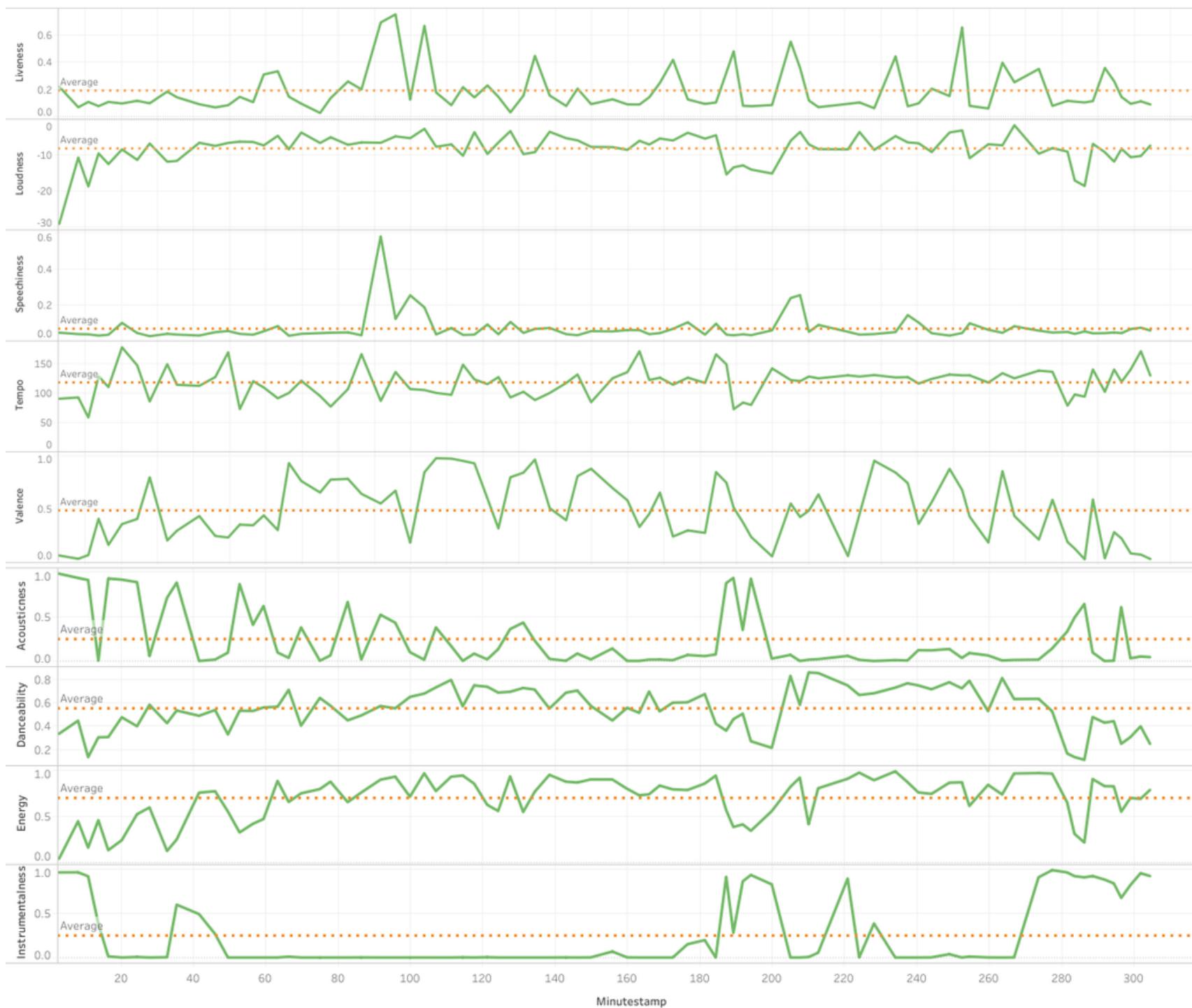
PCP_Marathon

Ironhack's Final Project perfectly crafted playlist.

Enrique • 83 songs, 5 hr 4 min



Custom order ▾



Liveness

Loudness

Speechiness

Tempo

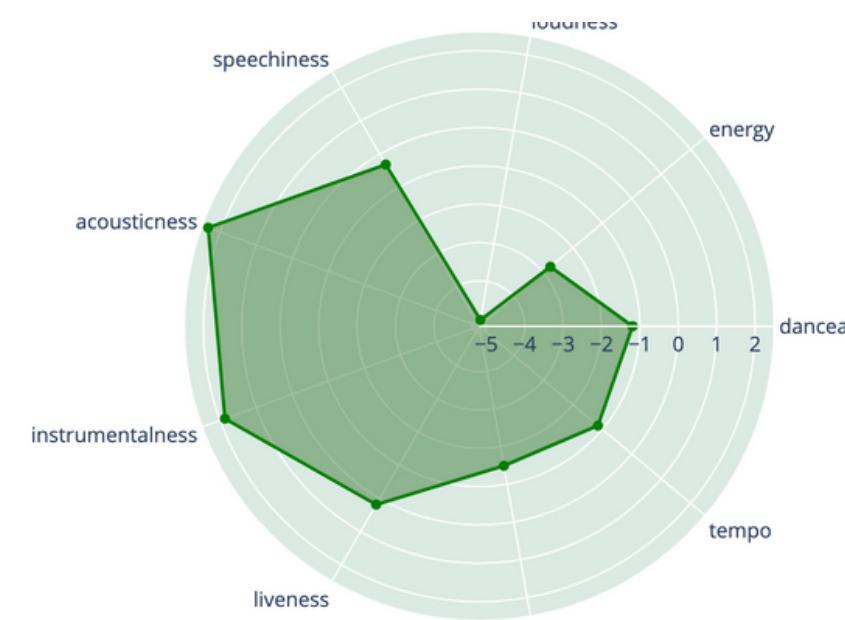
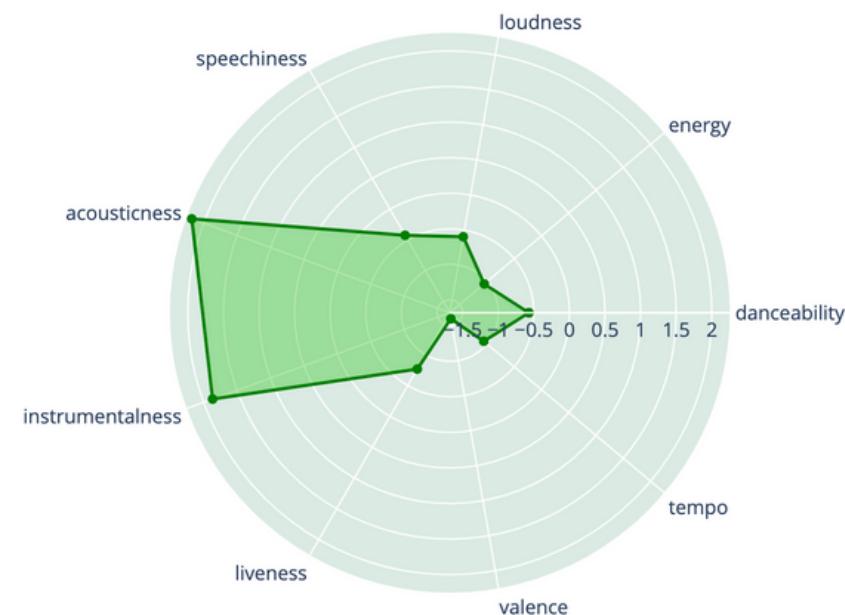
Valence

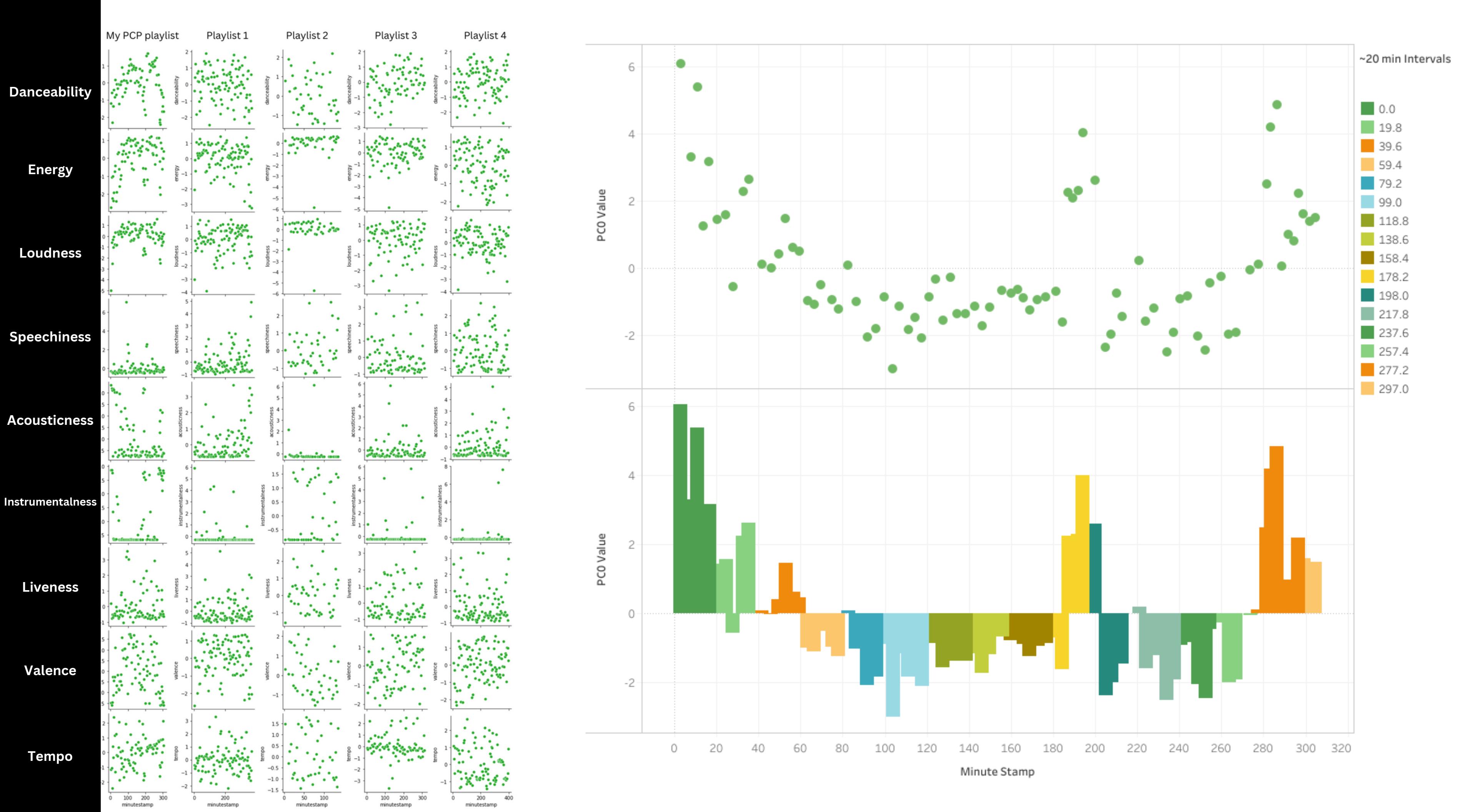
Acousticness

Danceability

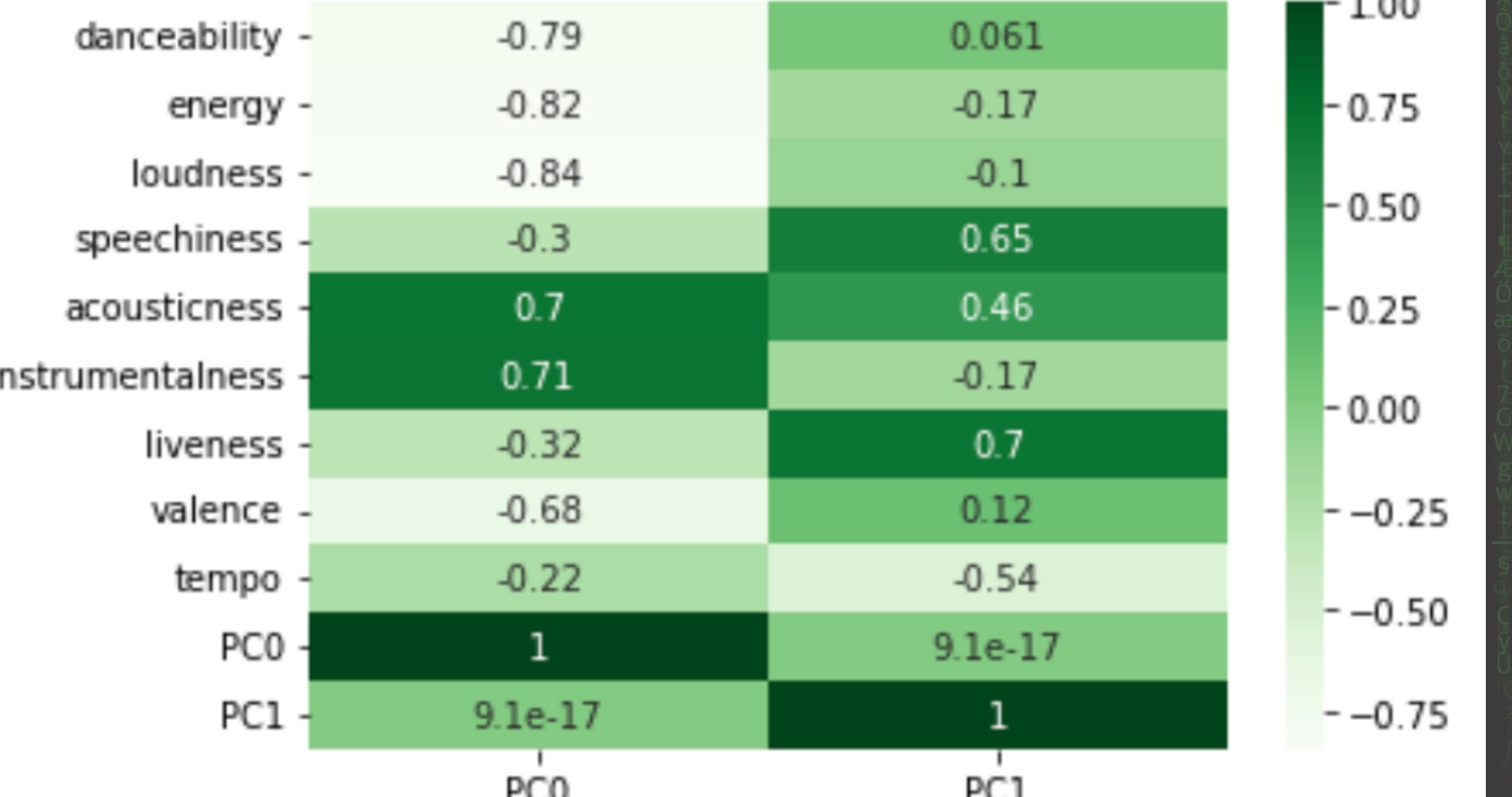
Energy

Instrumentalness





CORRELATION TO SPOTIFY FEATURES



Z-SCORES

```
(-2.430978764631182, 0.015058097076510664)
(0.682434491488479, 0.49496425217517115)
(0.7657807120682412, 0.44380679266204226)
(-0.6006151569063334, 0.5480963403439476)
(-11.54445018739292, 7.87433808318677e-31)
(-1.6271005897138737, 0.10371573581869017)
(-0.5878266311467477, 0.5566486668123871)
(4.461820912730529, 8.126613039675528e-06)
(2.3877028704188685, 0.016954042658814106)
(-1.0614549586141069, 0.2884831919197963)
(-1.3666041420393318, 0.1717494182275261)
(2.567821144301465, 0.010233994442452063)
(0.8773385924692498, 0.3803027563233704)
(2.620663802135263, 0.00877587593062979)
(4.855467904832399, 1.201028069273516e-06)
```

The Algorithm as a Pipeline

START

```
def playlisttods(x):  
    def createPCA(x):  
  
        def playlisttods(x):  
            def PCAtoPool(x,y):  
                def simi_matrix (x):  
  
                    def recommender(x,y,n):  
  
                        def spotiposter(x,y,z):
```

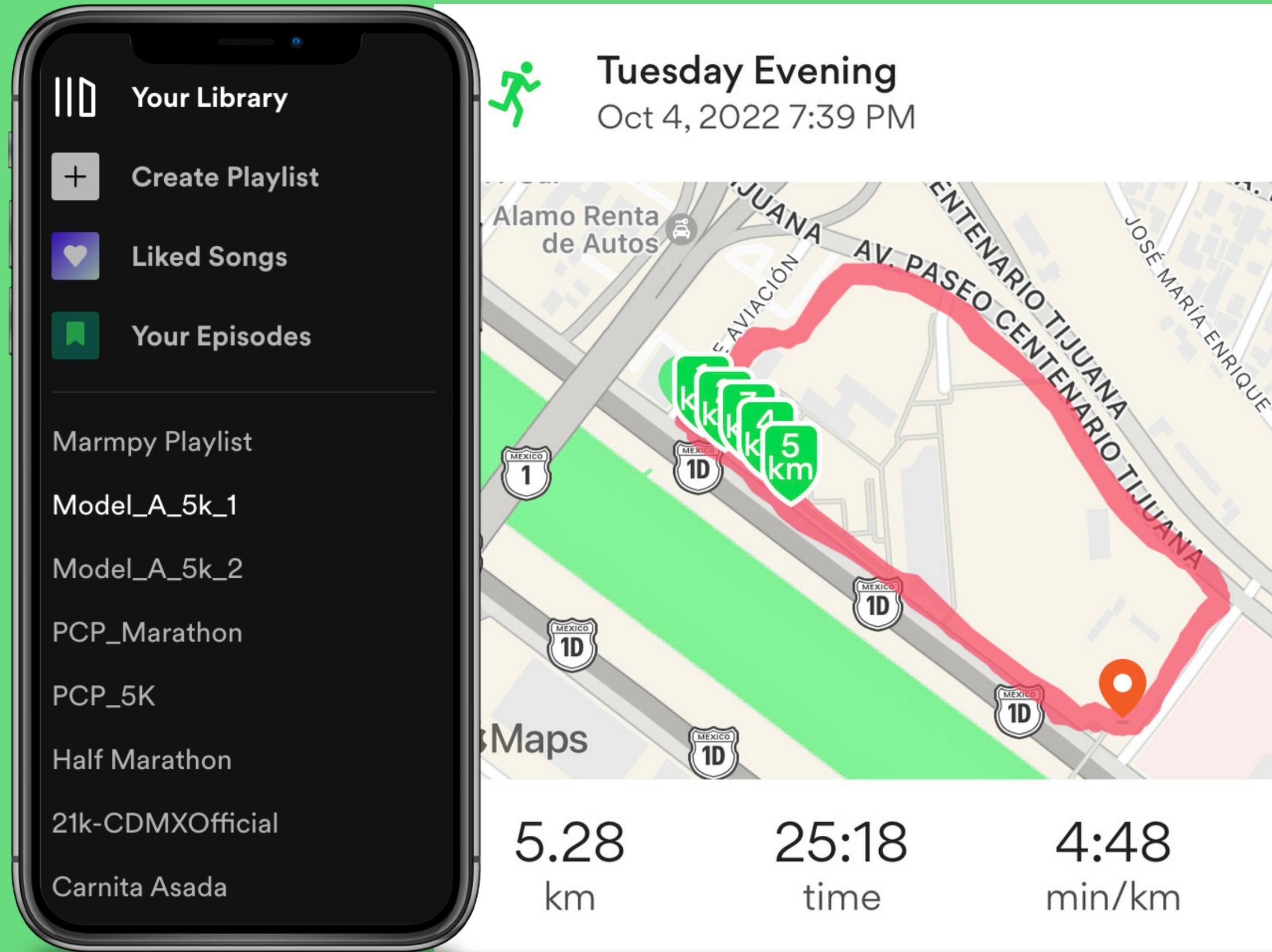


track.name	danceability	energy	key	loudness	mode	speechiness	acousticness	instrumentalness	liveness	...	type
A Model of the Universe	0.336	0.044	7	-29.255	0	0.0456	0.98200	0.9600	0.2210	...	audio_features
Experience	0.447	0.449	2	-10.634	1	0.0376	0.93400	0.9610	0.0697	...	audio_features
Tchaikovsky: Swan Lake, Op. 20, Act II: No. 10...	0.136	0.164	4	-18.756	0	0.0364	0.91100	0.9160	0.1090	...	audio_features
La Vida Es Bella - La Vida Es Bella	0.305	0.460	2	-9.463	1	0.0295	0.00468	0.3800	0.0777	...	audio_features
I'm on Fire	0.307	0.136	3	-12.474	1	0.0341	0.92800	0.0122	0.1090	...	audio_features

Initial df(Detail)											
Recommender Chart (Detail)			Initial df(Detail)								
A Model of the Universe			Experience			Tchaikovsky: Swan Lake, Op. 20, Act II: No. 10, Scene. Moderato			La Vida Es Bella - La Vida Es Bella		
(A Heart Full Of Love - Reprise, spotify:track...	(Confieso, spotify:track:44kl7aJvJAYJkREVk0Rmei)	(Alföður orkar (with Steindór Andersen, Hilmar...	(TRON Legacy (End Titles) - From "TRON: Legacy...								
(Heureuse, spotify:track:5NvtYYIYViQ2uV0fzoBTII)	(Mystery of Love, spotify:track:0MNNKSUU9OOQ8D...	(Le Carnaval des Animaux: Aquarium, spotify:tr...	(Cuántas Veces, spotify:track:0dfyGtKJoxV8KAYR...								
(En Peligro de Extinción, spotify:track:4hl4Qs...	(Dancing On My Own, spotify:track:5zn0ihstICpx...	(64°02'44.1"N 16°10'48.5"W, spotify:track:726D...	(Padam padam, spotify:track:194uD6fRM58tn7Z1M...								
(Think Of Me - From 'The Phantom Of The Opera'...	(Áss hinn hvíti (with Steindór Andersen, Hilma...	(Untitled #1 - Vaka, spotify:track:331TLISwGbV...	(Ya No Te Hago Falta, spotify:track:4Rli1gNmKD...								
(One Day More, spotify:track:6ophEFs89SOktBpFn...	(Complainte De La Butte - From "Moulin Rouge" ...	(Visions of Gideon, spotify:track:0SUDiaR0qm30...	(Hoppipolla, spotify:track:6eTGxxQxiTFE6LfZHC3...								
(All I Ask Of You - From 'The Phantom Of The O...	(Ekki múkk, spotify:track:36ZSqoEkEtH6s9FvVS9yNe)	(Spár eða spakmál (with Steindór Andersen, Hil...	(Space Oddity - 2015 Remaster, spotify:track:7...								
(Simon and Lady Danbury, spotify:track:2hluEnj...	(Festival, spotify:track:38EYeox46Rnh5TLCzCJr7u)	(Boys In The Street, spotify:track:4YrGsfaoLLE...	(Rafstraumur, spotify:track:3UcjiOnpMKJ0t0y3HT...								



But does it work?



Thank You.

