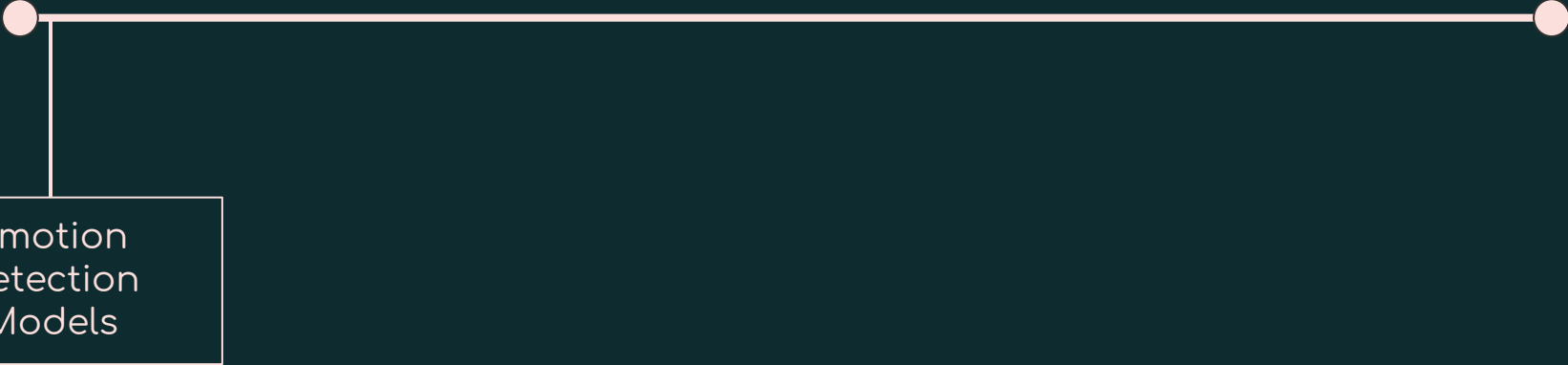# Mood Maker

Leslie Raganit

MS: Physics
Concentration: Astronomy

BS: Cell and Molecular Biology
Minor: Chemistry

Emotion
Detection
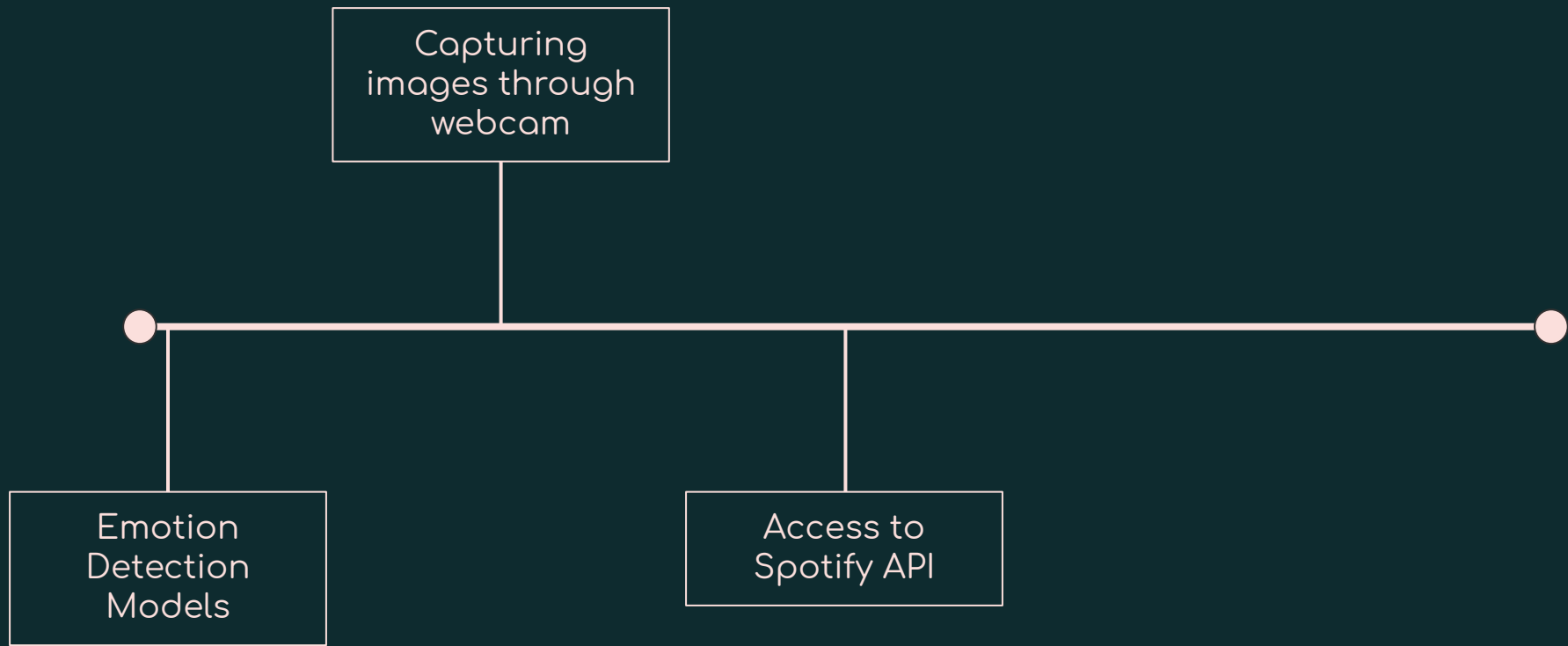Models

Project Workflow

Capturing
images through
webcam

Emotion
Detection
Models

Project Workflow

Capturing images through webcam

Emotion Detection Models

Access to Spotify API

Project Workflow

Capturing images through webcam

Obtaining information from songs

Emotion Detection Models

Access to Spotify API

Project Workflow

Capturing images through webcam

Obtaining information from songs

Emotion Detection Models

Access to Spotify API

Giving song according to the emotion
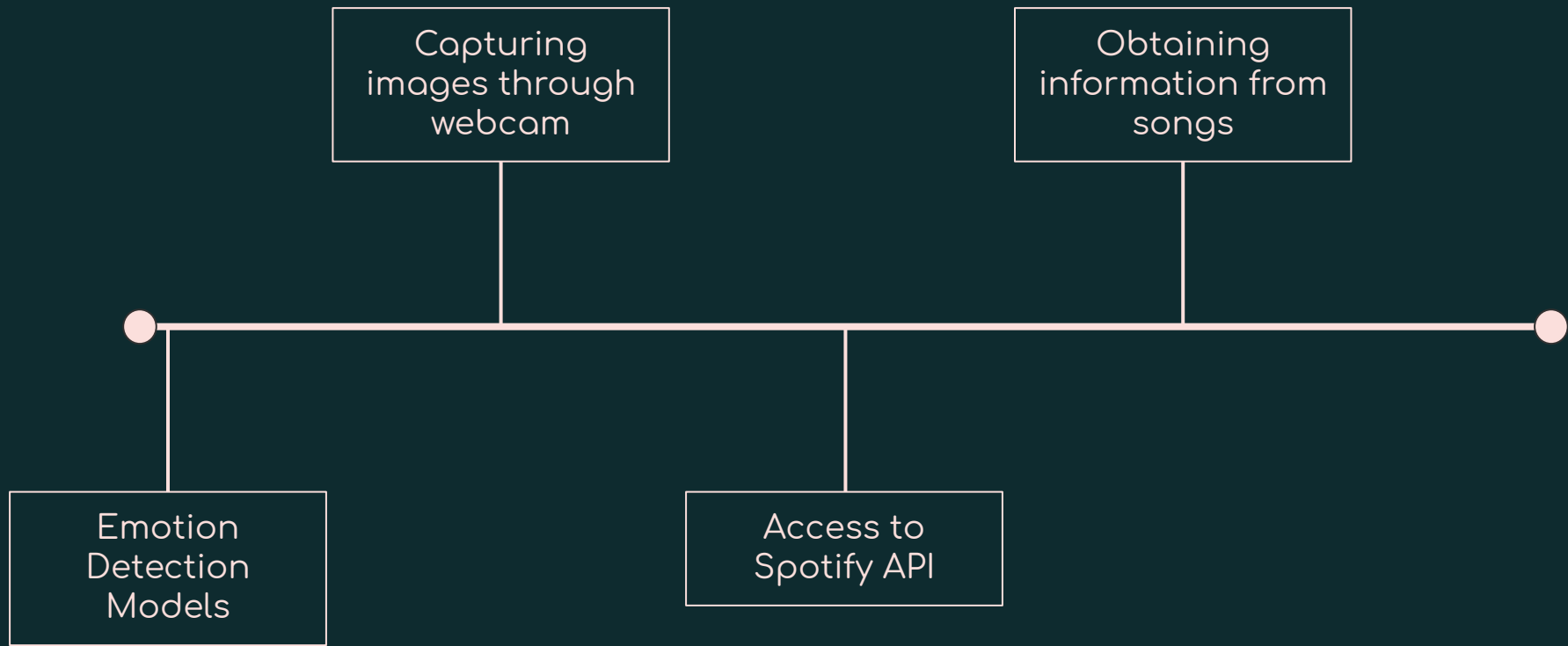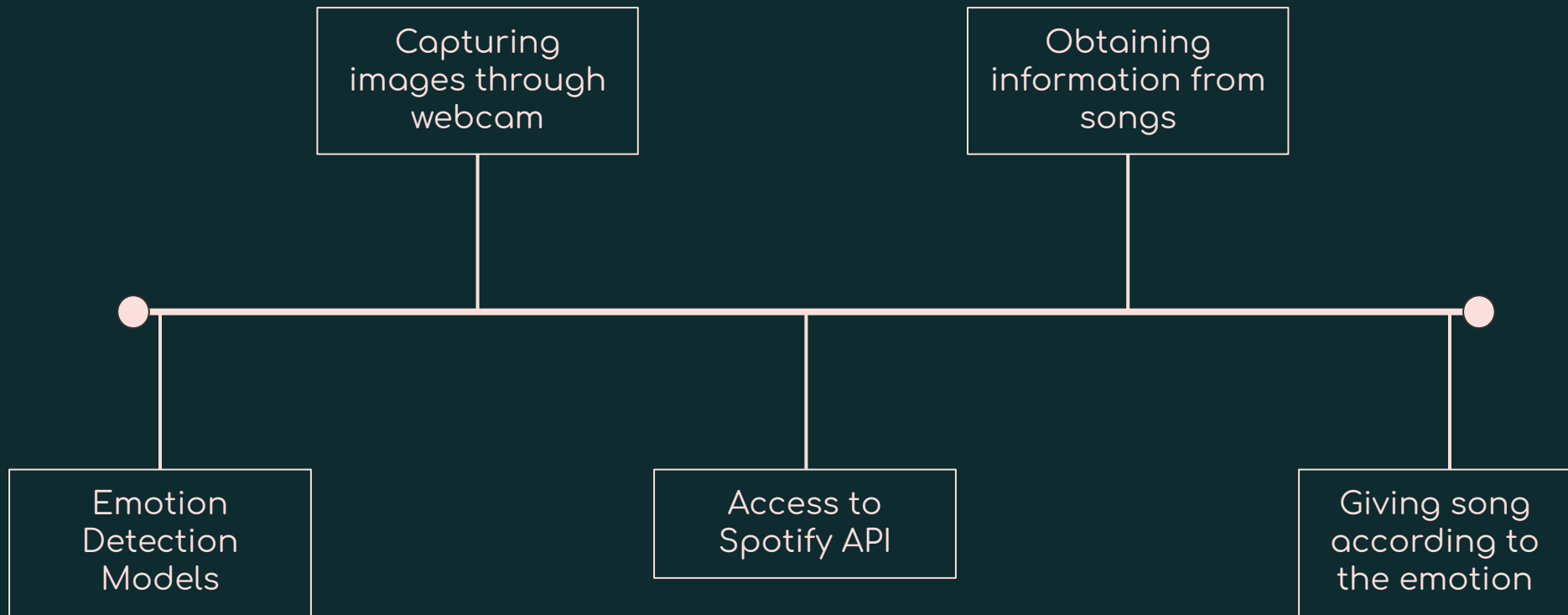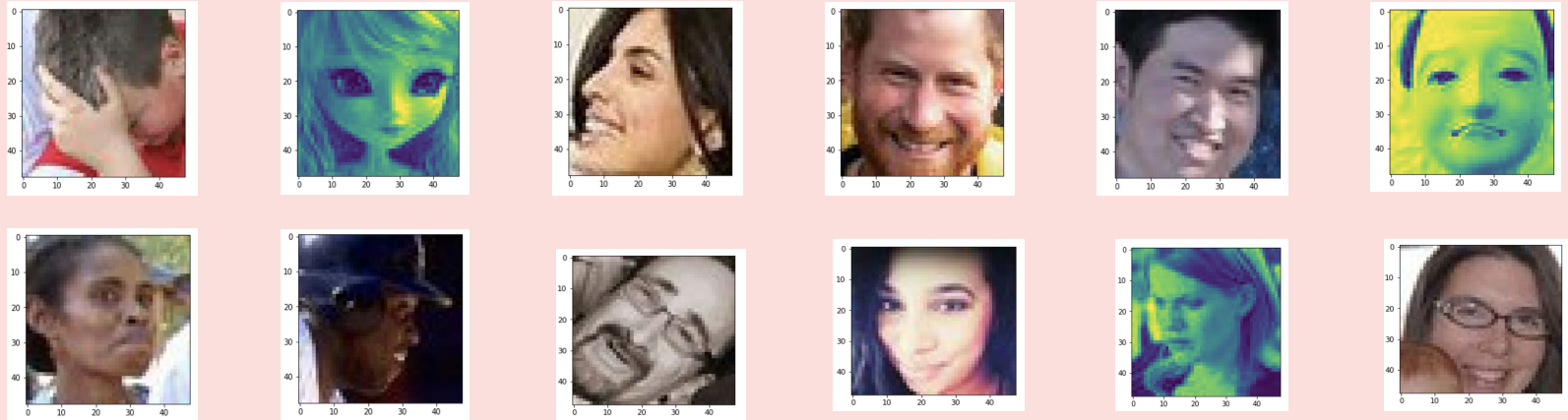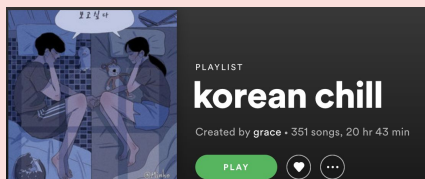
Project Workflow

Creating the Emotion Detection Models

The input images for the models have a resolution of 48 x 48 pixels. The emotions that I had focused on were happy, sad, angry, and neutral. This is because these emotions were the simplest to find fitting songs to. The final accuracy measurement of my model is 57%

Determining the Song to Fit the Mood

I obtained information about each of the songs from the following categories:

- danceability
- energy
- loudness
- speechiness
- acousticness
- instrumentalness
- liveness
- valence
- tempo

The playlists on the left were the base emotion playlists that I compared the user playlist to

USER · FOLLOWS YOU

Raphael Raganit

FOLLOWING ⋯

OVERVIEW   RECENTLY PLAYED ARTISTS   FOLLOWING (28)   FOLLOWERS (39)

Unfollow

Report

Share   ＞

f Facebook

✉ Messenger

𝕏 Twitter

✈ Telegram

Ⓢ Skype

t Tumblr

◉ Spotify Code

🔗 Copy Profile Link

Copy Spotify URI

Recently Played Artists

Frank Ocean

7,602,082 FOLLOWERS

The Lumineers
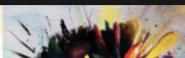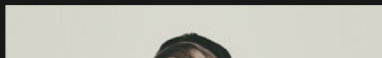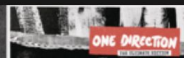
4,245,965 FOLLOWERS

Ryan Beatty

116,579 FOLLOWERS

7,143,7

Public Playlists

Starred

Created by **Raphael Raganit** • 1,097 songs, 67 hr 27 min

PLAY ♡ •••

	Go to Playlist Radio		
🔍 Filter			Do
	Make Public		
TITLE ∧	Report	ALBUM	📅
	Remove from Your Library		
♡ 10,000 Hours (with Justin Bieber)		10,000 Hours (with Justin Bie...	2019-10-14
♡ 1-800-273-8255	EXPL	Everybody	2017-10-08
	Create Similar Playlist		
♡ 2002	Download	Speak Your Mind (Deluxe)	2018-11-27
♡ 2 / 14	Share ＞		2020-10-21
♡ 24	EXPLICIT	Arizona Zervas Facebook	2020-07-25
♡ 2U (feat. Justin Bieber)		David Guetta, Justin Bieber Messenger	2019-10-07
♡ 30,000 Feet		Ben Rector Twitter	2020-07-08
♡ 3AM - 2007 Remaster		Matchbox Twenty Telegram	2012-11-19
♡ 40 Day Dream		Edward Sharpe & The Magneti Skype	2015-06-09
♡ 500 Days of Summer	EXPLICIT	Grady Tumblr	2020-08-25
♡ 5 O'Clock (feat. Lily Allen & Wiz Khalifa)	EXPLICIT	T-Pain, Lily Allen, Wiz Khalifa Spotify Code & W...	2015-07-10
♡ 5 shots	EXPLICIT	gianni & kyle Copy Playlist Link she's no angel	2020-08-05
♡ 7 Summers		Morgan Wallen Copy Embed Code 7 Summers	2020-08-28
		Copy Spotify URI	

Starred

Created by **Raphael Raganit** • 1,097 songs, 67 hr 27 min

PLAY ♥ ⋯

	Go to Playlist Radio	
	Make Public	
	Report	
	Remove from Your Library	
	Create Similar Playlist	
	Download	
	Share >	

🔍 Filter   Do

TITLE ^		ALBUM	📅
♥ 10,000 Hours (with Justin Bieber)		10,000 Hours (with Justin Bie...	2019-10-14
♥ 1-800-273-8255	EXPL	Everybody	2017-10-08
♥ 2002		Speak Your Mind (Deluxe)	2018-11-27
♥ 2 / 14			2020-10-21
♥ 24	EXPLICIT	Arizona Zervas	2020-07-25
♥ 2U (feat. Justin Bieber)		David Guetta, Justin Bieber	2019-10-07
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♥ 500 Days of Summer	EXPLICIT	Grady	2020-08-25
♥ 5 O'Clock (feat. Lily Allen & Wiz Khalifa)	EXPLICIT	T-Pain, Lily Allen, Wiz Khalifa	& W...	2015-07-10
♥ 5 shots	EXPLICIT	gianni & kyle	she's no angel	2020-08-05
♥ 7 Summers		Morgan Wallen	7 Summers	2020-08-28

Share menu:
- Ⓕ Facebook
- 💬 Messenger
- 🐦 Twitter
- ✈ Telegram
- Ⓢ Skype
- Ⓣ Tumblr
- 📷 Spotify Code
- 🔗 Copy Playlist Link
- Copy Embed Code
- Copy Spotify URI

Demo Time!

Neutral

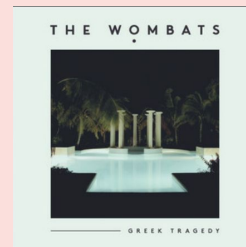Song: Time after time
Artist: Quietdrive

Sad

Song: Falls (ft. Sasha Sloan)
Artist: ODESZA

Happy

Song: You got me good
Artist: Cimorelli

Angry

Song: Greek Tragedy
Artist: The Wombats

Libraries used

- Pandas
- NumPy
- Os
- Glob
- Pillow
- TensorFlow
- Keras
- Scikit-Learn
- CV2
- iMutils
- Spotipy

Thank you for listening :)

Email: lnraganit@gmail.com
LinkedIn: /lraganit-star/
Github: /lraganit-star

Spotify API

In order to obtain information about songs listed in spotify, we need to access the Spotify API.

From there, Spotipy, a library that allows us to look into song details, gives us the ability to extract information from each of the songs.

In this app, we're going to be taking information from songs from the user's playlist.