



GET A SONG FOR YOUR MOOD

API sentiment recognition

JULY, 2020 | JORGE DONCEL

OBJECTIVES

CREATE AN API WHERE YOU SEND A PHOTO
AND, DEPENDING OF YOUR FACIAL
EXPRESSION, GET A SONG FOR YOUR MOOD.



HOW?

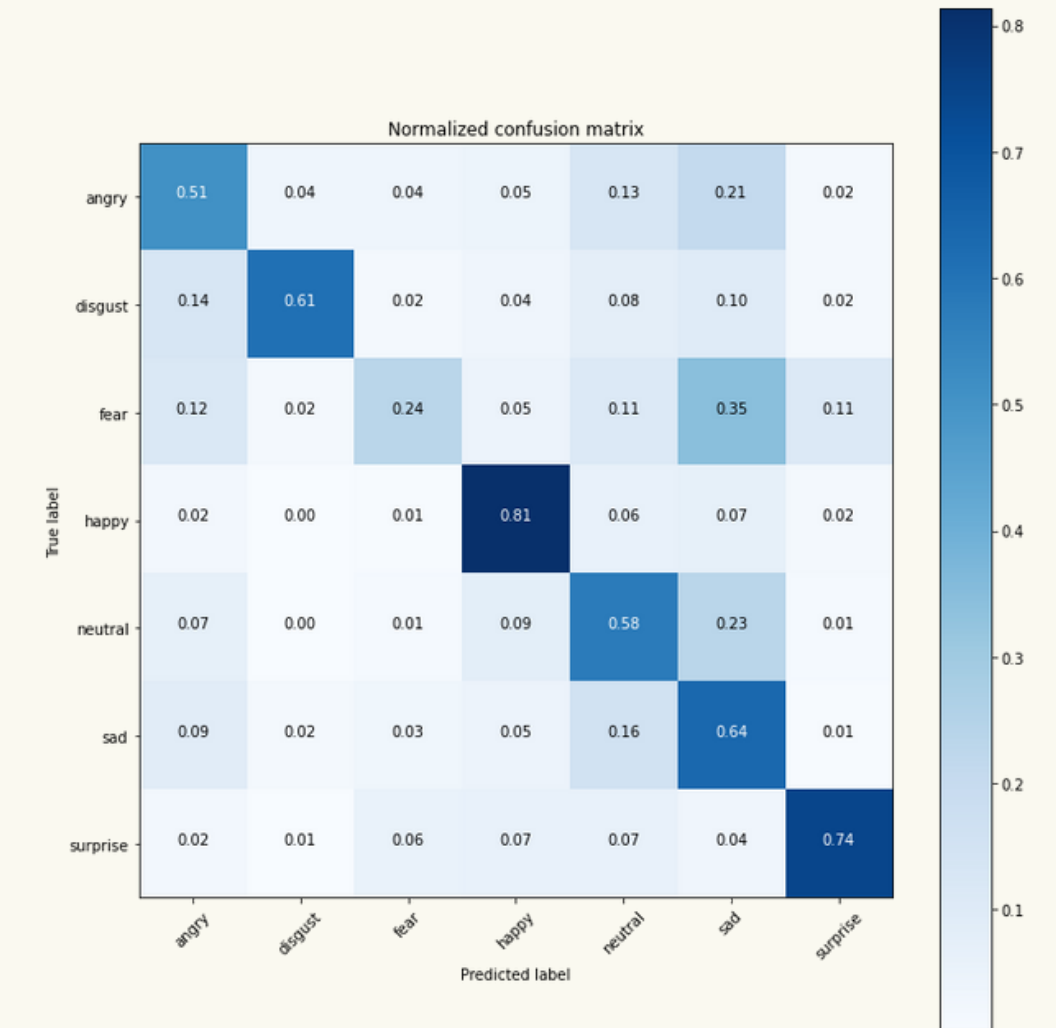
TRAIN 2 NN MODELS WITH DIFFERENTS DATASETS

FER MODEL



ACCURACY 0.6142

TRAIN/VALIDATION



ACCURACY= 0.6155

Model select

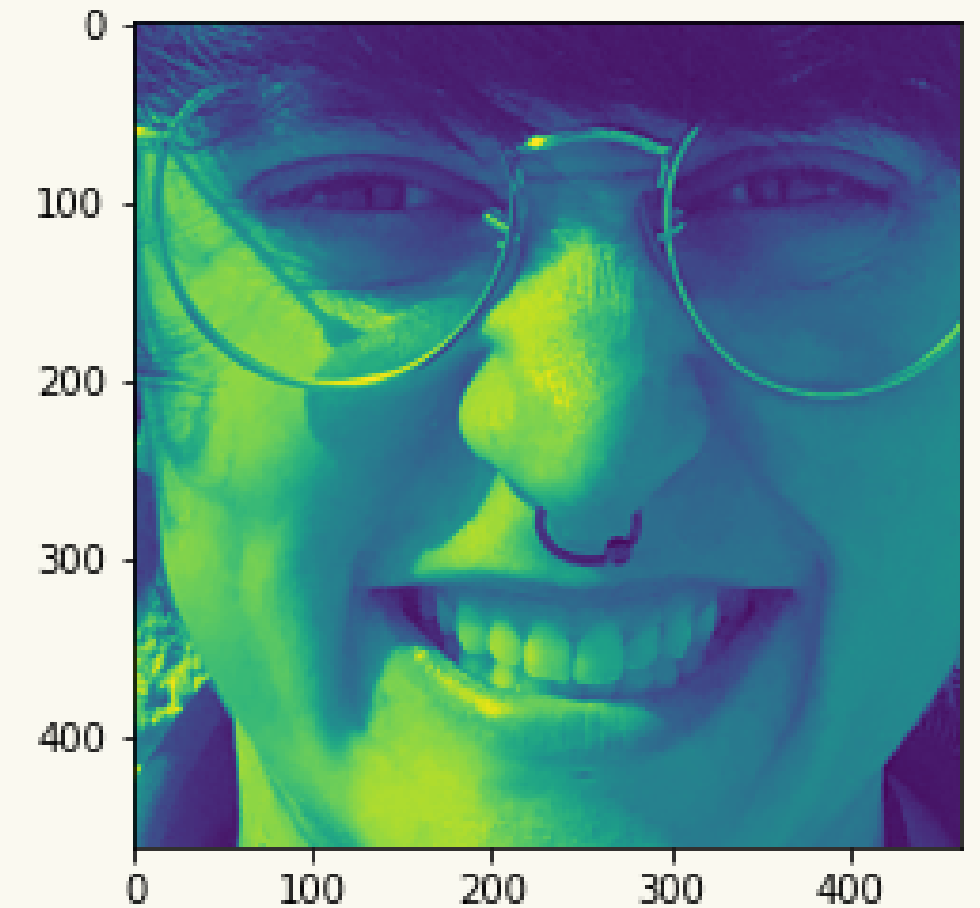
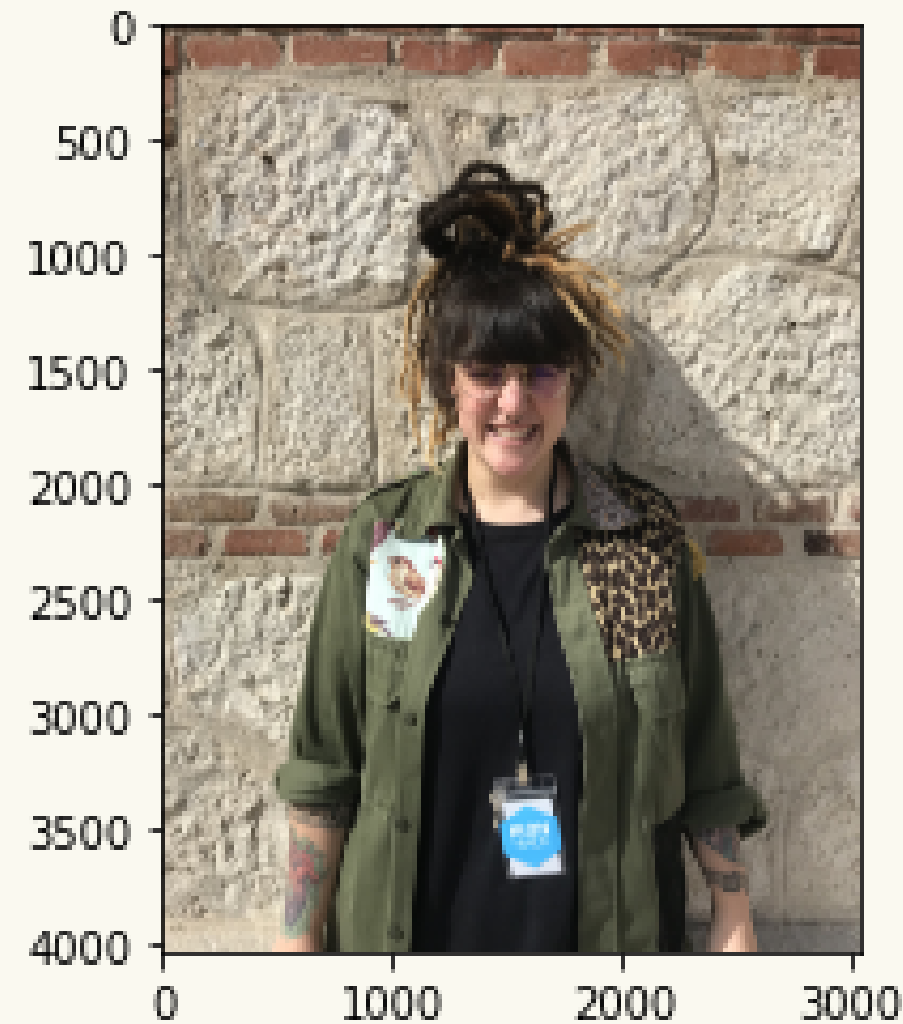


Libraries

Keras
Pandas
Numpy

FACE RECOGNITION

- Recognize a face
- Take the coordinates
- Cut the photo
- Transform to gray scale
- Resize 48x48



Libraries

cv2

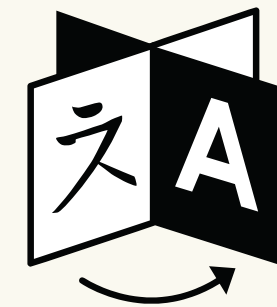
face_recognition

SONGS

Spotify database 18.454 songs



Keep songs with english lyrics



Analize lyrics sentiments



Categorize songs depends of mood

Sad = Energy & Positive

Happy = Danceability & Energy

Fear = Liveness & Positive

Disgust = Negative & Acousticness

Angry = Energy & Liveness

Surprise = Acousticness & Instrumentals

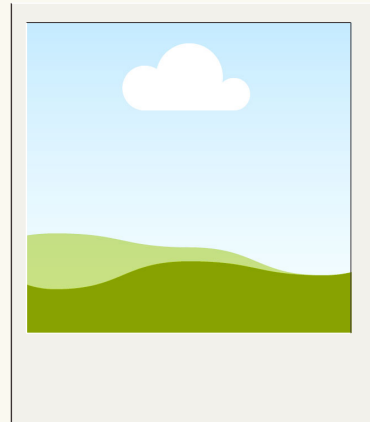
Neutral = Neutral

Library.

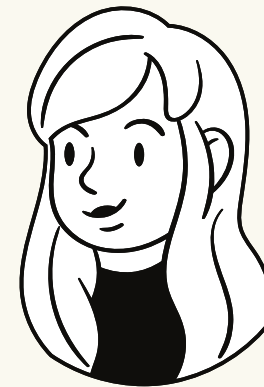
NLTK

HOW DOES IT WORKS

Upload a photo



Face and sentiment
recognition



Song selection for your mood



Get Youtube url song



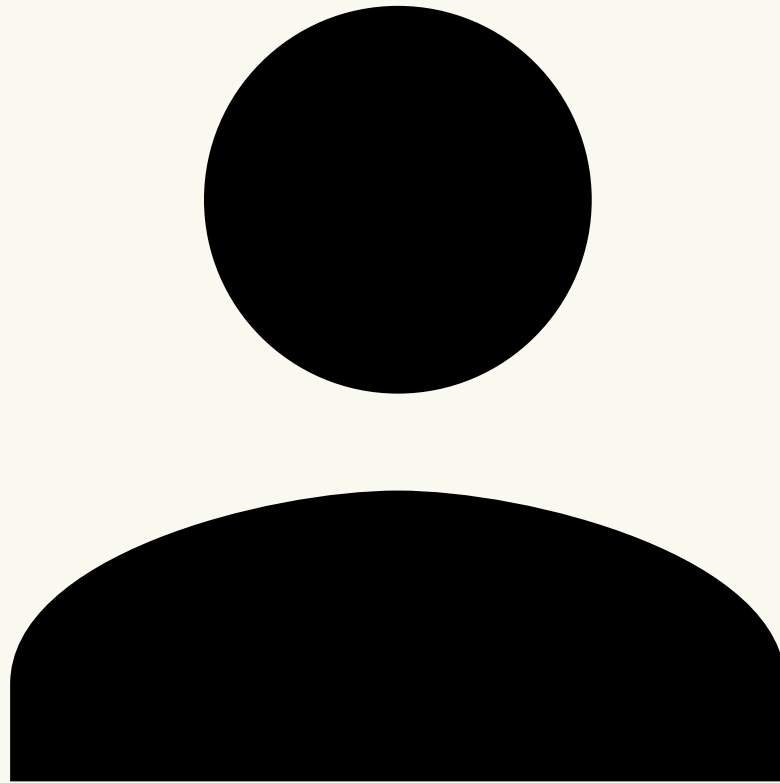
You get your song!



FUTURE IMPROVEMENTS

USER

Allow user to decide which songs they like to listen according to their mood



COVID-19 ERA

Recognize photos where the person wear a mask



READY TO TRY IT?



[APISONGSFAC.HEROKUAPP.COM](https://apisongsfac.herokuapp.com)