Welcome to inceptiontube's documentation!

Indices and tables

- Index
- Module Index
- Search Page

inceptiontube init

inceptiontube.__init__.CountFrequency(*my_list*)

Counts the frequency of every prediction, creates an ordered dictionary (from most to least frequent) of the predictions.

Parameters

my_list (*String[]*) – Array of predictions

Returns

OrderedDict containing the predictions and their frequencies

Note

this should follow the predict() method and should take the predictions array as input

inceptiontube.__init__.applyPercentageFilter(*dict*, *nframes*)

Returns only the items contained in at least PERCENTAGE % of frames

Parameters

- **dict** (*OrderedDict*) – Dictionary containing the predictions to be filtered
- **nframes** (*Integer*) – number of frames collected from the whole video

Returns

OrderedDict containing the filtered predictions

inceptiontube.__init__.applyThresholdFilter(*predictions_list*)

Filters out the predictions in the input list which have lower confidence than ACTIVATION_THRESHOLD

Parameters

predictions_list – List of predictions

Returns

Array containing the predictions above ACTIVATION_THRESHOLD

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inceptiontube.__init__.clearScreens()

Deletes every frame extracted in the screens folder

Returns

1 if exception is raised

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inceptiontube.__init__.clearVideos()

Returns

1 if exception is raised

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inceptiontube.__init__.downloadAndClassify(*yt_query*, *category*, *max_vid*)

Calls the requested query on youtube, downloads videos until it finds n of them containing the requested category

Parameters

- **yt_query** (*String*) – The query to submit
- **category** (*String*) – The category to search for
- **max_vid** (*Integer*) – The number of videos containing the requested category to look for

Returns

A list of the first n videos containing the requested category

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inceptiontube.__init__.downloadVideo(*url*)

Downloads a video to the videos folder from a Youtube URL.

Parameters

url (*String*) – The URL of the video to download inside the current video folder

Note

Tries to download the best resolution lesser or equal than 480p, for optimization purposes

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inceptiontube.__init__.extractAndPredict(*video_name*)

Combines extractImages() and predict() to extract frames and predict them immediately, instead of saving them in the screens folder in extractImages() and loading them again in predict()

Parameters

video_name (*String*) – Name of the video to analyze in the video folder

Returns

A list of predictions and the number of frames processed

Note

this may be slower than using the two functions separately.

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inceptiontube.__init__.extractImages(*video_name*)

Takes a video and extracts a frame every frameDelay milliseconds, saves them in the screens folder

Parameters

video_name (*String*) – Name of the video contained in the video path

Returns

Number of frames extracted from the video

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inceptiontube.__init__.getScreensPath()

Returns

String containing the path to the current screens folder

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inceptiontube.__init__.getVideoPath()

Returns

String containing the path to the current video folder

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inceptiontube.__init__.loadImageFromFile(*filepath*)

Loads an image and prepares it for the InceptionV3 prediction

Parameters

filepath (*String*) – String containing the path of the image to load

Returns

Array containing the inceptionV3-ready image

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inceptiontube.__init__.predict()

Analyzes every frame in the screens folder, and puts every predictions in the same list (duplicates are expected)

Returns

A list of predictions and the number of frames processed

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inceptiontube.__init__.predictFromFolder(*path*)

Like predict(), but works for a different folder than the standard one

Parameters

path (*String*) – Path to the folder

Returns

A list of predictions and the number of frames processed

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inceptiontube.__init__.predictSingle(*filepath*)

Like predict(), but works for a single image

Parameters

filepath (*String*) – Path of the image to predict

Returns

A list of predictions

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inceptiontube.__init__.prepareImage(*image, target*)

Preprocesses an image to be analysed with InceptionV3

Parameters

- **image** (*PIL image*) – Image to convert
- **target** ((*Integer, Integer*)) – target=(299, 299) for InceptionV3

Returns

Array containing the inceptionV3-ready image

Note

This should be used with an image extracted by cv2.read(), otherwise loadImageFromFile()

should be used instead

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inceptiontube.__init__.setActivationThreshold(*ar*)

Parameters

ar (*Float between 0.1 and 1*) – The new activation threshold

Returns

1 if value is not correct

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inceptiontube.__init__.setDelay(*fps*)

Parameters

fps (*Integer between 1 and 1000*) – Indicates how many frames per second to extract from the video

Returns

1 if value is not correct

inceptiontube.__init__.setPercentage(*pt*)

Parameters

pt (*Float between 1 and 100*) – The new percentage threshold

Returns

1 value is not correct

inceptiontube.__init__.setScreensPath(*path*)

Parameters

path (*String*) – The screens folder path

inceptiontube.__init__.setVideoPath(*path*)

Parameters

path (*String*) – The video folder path

inceptiontube.__init__.youtubeQuery(*input_query*)

Inputs a query on Youtube and returns a list of video URLs

Parameters

input_query (*String*) – The query to search on YouTube

Returns

List containing the URLs