## **Example Track Description**

(from: https://labrosa.ee.columbia.edu/millionsong/pages/example-track-description)

Below is a list of all the fields associated with each track in the database. This is simply an annotated version of the output of the example code display\_song.py. For the fields that include a large amount of numerical data, we indicate only the shape of the data array. Since most of these fields are taken directly from the Echo Nest Analyze API, more details can be found at the Echo Nest Analyze API documentation. A more technically-oriented list of these fields is given on the field list page.

This example data is shown for the track whose track\_id is TRAXLZU12903D05F94 - namely, "Never Gonna Give You Up" by Rick Astley.

artist mbid: db92a151-1ac2-438b-bc43-b82e149ddd50 the musicbrainz.org ID for this artists is db9...  $artist_mbtags: shape = (4,)$ this artist received 4 tags on musicbrainz.org artist mbtags count: shape = (4,)raw tag count of the 4 tags this artist received on musicbrainz.org artist name: Rick Astley artist name artist\_playmeid: 1338 the ID of that artist on the service playme.com artist\_terms: shape = (12,) this artist has 12 terms (tags) from The Echo Nest artist terms freq: shape = (12,)frequency of the 12 terms from The Echo Nest (number between 0 and 1) artist terms weight: shape = (12,) weight of the 12 terms from The Echo Nest (number between 0 and 1) audio md5: bf53f8113508a466cd2d3fda18b06368 hash code of the audio used for the analysis by The Echo Nest bars\_confidence: shape = (99,) confidence value (between 0 and 1) associated with each bar by The Echo Nest  $bars_start: shape = (99.)$ start time of each bar according to The Echo Nest, this song has 99 bars beats confidence: shape = (397,) confidence value (between 0 and 1) associated with each beat by The Echo Nest beats start: shape = (397)start time of each beat according to The Echo Nest, this song has 397 beats danceability: 0.0 danceability measure of this song according to The Echo Nest (between 0 and 1, 0 = > notanalyzed) duration: 211.69587

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duration of the track in seconds
end_of_fade_in: 0.139
       time of the end of the fade in, at the beginning of the song, according to The Echo Nest
energy: 0.0
       energy measure (not in the signal processing sense) according to The Echo Nest (between 0 and 1,
       0 => not analyzed)
key: 1
       estimation of the key the song is in by The Echo Nest
key confidence: 0.324
       confidence of the key estimation
loudness: -7.75
       general loudness of the track
mode: 1
       estimation of the mode the song is in by The Echo Nest
mode confidence: 0.434
       confidence of the mode estimation
release: Big Tunes - Back 2 The 80s
        album name from which the track was taken, some songs / tracks can come from many albums,
       we give only one
release 7digitalid: 786795
       the ID of the release (album) on the service 7digital.com
sections confidence: shape = (10,)
       confidence value (between 0 and 1) associated with each section by The Echo Nest
sections start: shape = (10,)
       start time of each section according to The Echo Nest, this song has 10 sections
segments confidence: shape = (935,)
       confidence value (between 0 and 1) associated with each segment by The Echo Nest
segments loudness max: shape = (935,)
        max loudness during each segment
segments_loudness_max_time: shape = (935,)
       time of the max loudness during each segment
segments_loudness_start: shape = (935,)
       loudness at the beginning of each segment
segments pitches: shape = (935, 12)
       chroma features for each segment (normalized so max is 1.)
segments start: shape = (935,)
        start time of each segment (~ musical event, or onset) according to The Echo Nest, this song has
       935 segments
segments_timbre: shape = (935, 12)
        MFCC-like features for each segment
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similar\_artists: shape = (100,)

a list of 100 artists (their Echo Nest ID) similar to Rick Astley according to The Echo Nest

song\_hotttnesss: 0.864248830588

according to The Echo Nest, when downloaded (in December 2010), this song had a 'hotttnesss' of 0.8 (on a scale of 0 and 1)

song id: SOCWJDB12A58A776AF

The Echo Nest song ID, note that a song can be associated with many tracks (with very slight audio differences)

start\_of\_fade\_out: 198.536

start time of the fade out, in seconds, at the end of the song, according to The Echo Nest

tatums confidence: shape = (794)

confidence value (between 0 and 1) associated with each tatum by The Echo Nest

tatums\_start: shape = (794,)

start time of each tatum according to The Echo Nest, this song has 794 tatums

tempo: 113.359

tempo in BPM according to The Echo Nest

time\_signature: 4

time signature of the song according to The Echo Nest, i.e. usual number of beats per bar

time signature confidence: 0.634

confidence of the time signature estimation

title: Never Gonna Give You Up

song title

track\_7digitalid: 8707738

the ID of this song on the service 7digital.com

track\_id: TRAXLZU12903D05F94

The Echo Nest ID of this particular track on which the analysis was done

year: 1987

year when this song was released, according to musicbrainz.org