

CHORDIFY

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Data Scientist

Are you a song writer?

You are now!

With Chordify, anyone who can write English words can compose a song!

How Chordify works:

- 1 Enter your favorite words or phrases into the custom interface.
- 2 The system returns appropriate chord suggestions.
- 3 Take the suggested chords, apply your custom tempo and instrumentation, and write a killer song using your own words!

What are you saying?

- Common songs in a minor key:
 - Led Zeppelin: Stairway to Heaven (Am)
 - The Animals: House of the Rising Sun (Am)
 - Neil Young: Heart of Gold (Em)



Heart of Gold

Words and Music by Neil Young



Strum Pattern: 3, 4

Pick Pattern: 3, 4

Intro

Moderately

The image is a musical score for the song 'Heart of Gold' by Neil Young. It includes guitar and vocal staves. The guitar part starts with an introduction in E minor, marked 'Moderately'. The vocal part begins with the lyrics '1. I wan - na live, 2. See additional lyrics'. The score includes various chords (Em7, D, Em, C, G) and a strum/pick pattern of 3, 4. The lyrics are: '1. I wan - na live, 2. See additional lyrics', 'I've been a min - or for a', 'heart of gold -', 'It's these ex - pec - tations', 'I nev - er give'.

Verse

1. I wan - na live, 2. See additional lyrics

I've been a min - or for a

heart of gold -

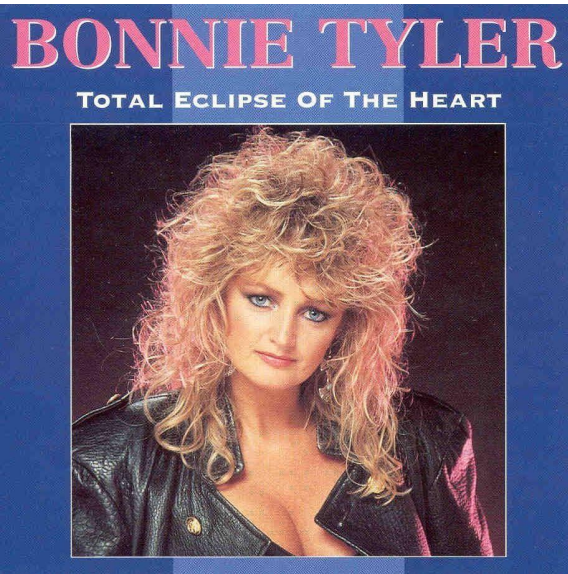
It's these ex - pec - tations

I nev - er give

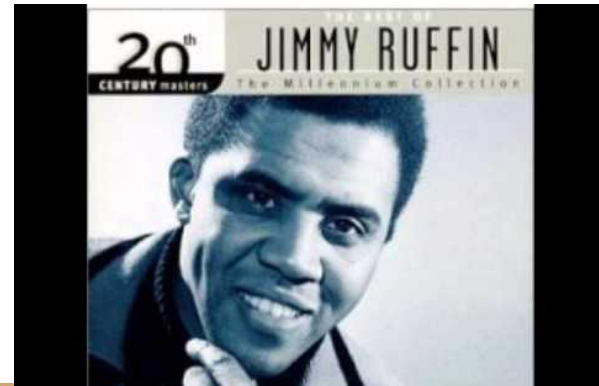
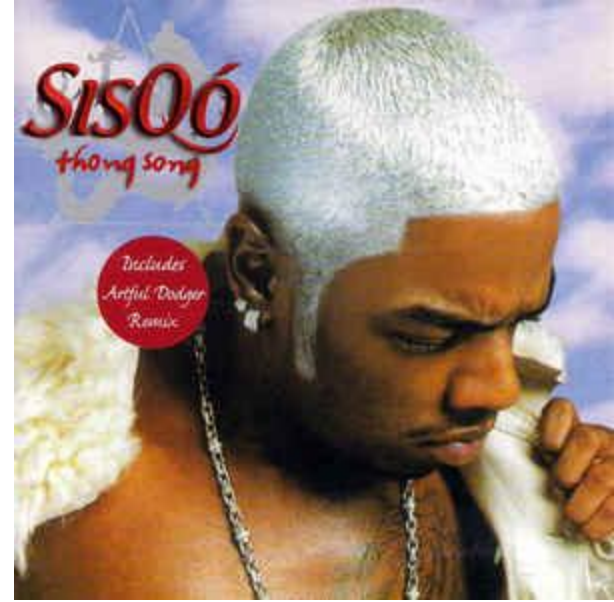
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Oh! Now you have my attention...

Songs with key changes:



- Sisqo: The Thong Song
- Belinkie: Build Me Up, Buttercup
- Jimmy Ruffin: What Becomes of the Broken-Hearted?
- Bonnie Lee Tyler: Total Eclipse of the Heart



Methodology

- 8,000 songs
- Line-by-line analysis
- Phrase vs. chord change
- Guitar tabs and chords
- Rock, pop, country, folk

Im So Tired chords by The Beatles

128,380 views, added to favorites 5,131 times

Difficulty: intermediate

Author **Pencom** 29,763. Last edit by **Pencom** 29,763 on Dec 13, 2017.

★ VIEW OFFICIAL TAB  BACKING TRACK  TONEBRIDGE

STRUMMING

There is no strumming pattern for this song yet. [Create](#) and get +5 IQ

I'm So Tired chords

The Beatles 1968 (White Album) **

A G# D E7 A F#m D E7
I'm so tired, I haven't slept a wink, I'm so tired, my mind is on the blink.
A E+ * F#m Dm
I wonder should I get up and fix myself a drink, no, no, no

A G# D E7 A F#m D E7
I'm so tired, I don't know what to do, I'm so tired, my mind is set on you.
A E+ F#m Dm
I wonder should I call you but I know what you would do...

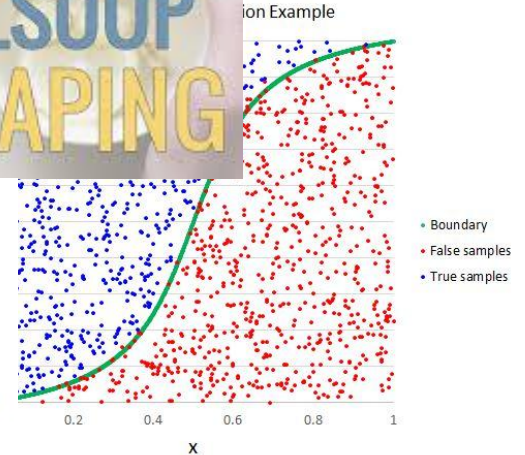
A
You say I'm putting you on but it's no joke, it's doing me harm you know I
E7
can't sleep, I can't stop my brain, you know it's three weeks, I'm going insane
D A
you know I'd give you everything I've got for a little peace of mind.

Technologies

- Python
- PyMongo
- Selenium
- BeautifulSoup
- Matplotlib
- Natural Language Processing
- Tf-Idf Vectorization
- Logistic Regression



Selenium Webdriver



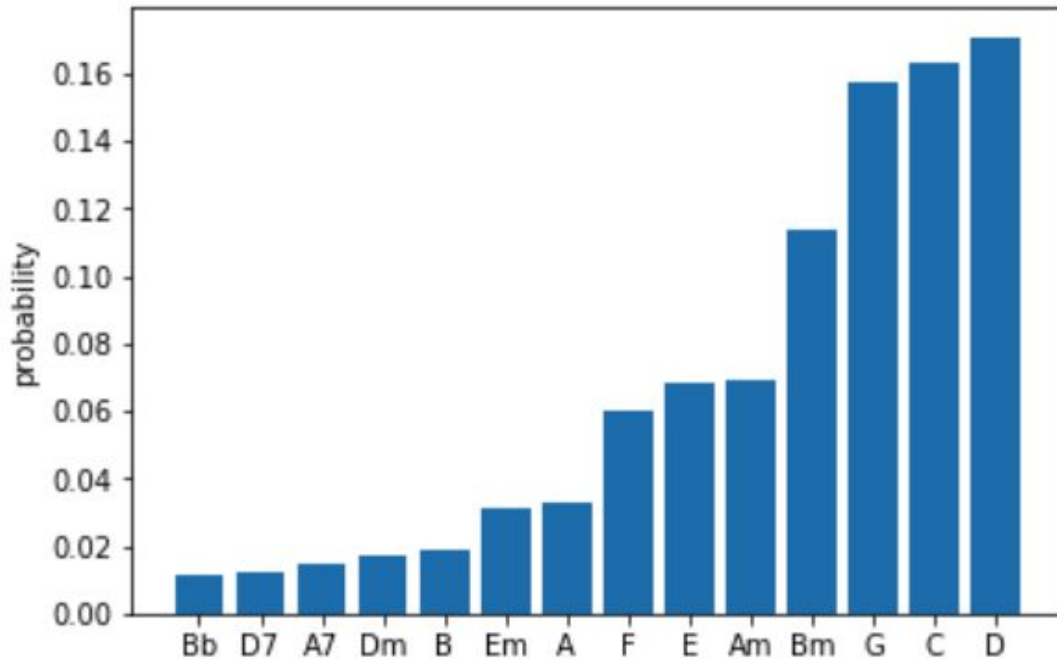
Relative Chord Probabilities: Line-by-line

Chords list = A, B, C, D, E,
F, G, A7, D7, Em, Am, Bm,
Dm, Bb

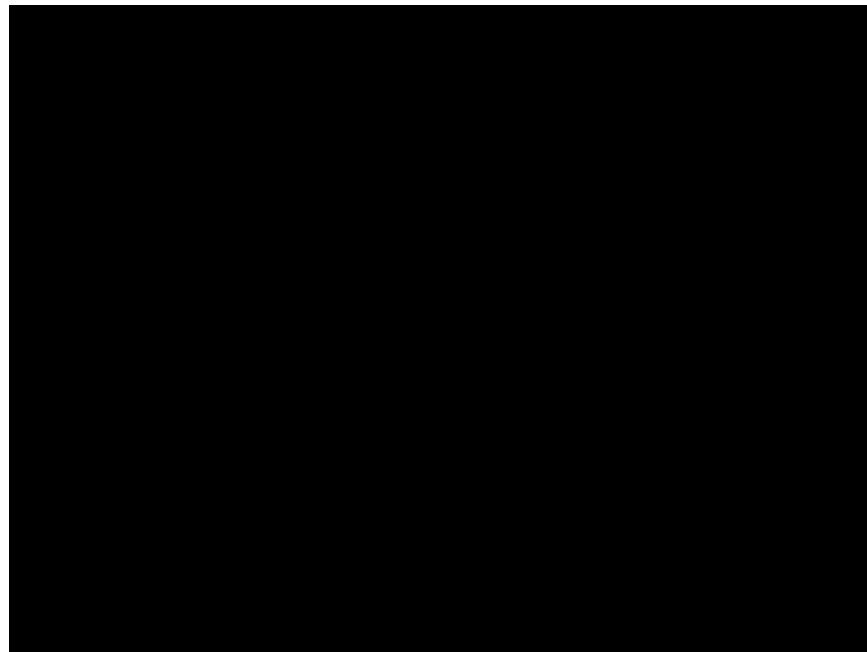
Line: **"I haven't slept a wink."**

Song: "I'm so tired"

Artist: The Beatles



Line-by-line Chord Probability Analysis



Results

"I'm So Tired"

The Beatles

Line	Predicted Chord	Actual Chord
I'm so tired	G	A, G#7
I haven't slept a wink	D	D, E
My mind is on the blink	C	D, E
I wonder should I get up	C	A, E
And fix myself a drink	G	F#m, Dm
I don't know what to do	Bm	D, E
My mind is set on you	C	D, E
I wonder should I call you	C	A, E
But I know what you'd do	F	F#m
You'd say I'm putting you on	F	A
But it's no joke	C	A
It's doing me harm	C	A
You know I can't sleep	G	E
I can't stop my brain	G	E
You know it's three weeks	G	E
I'm going insane	C	E
You know I'd give you everything I've got	G	D
For a little peace of mind	D	D, A

Results

“Landslide”

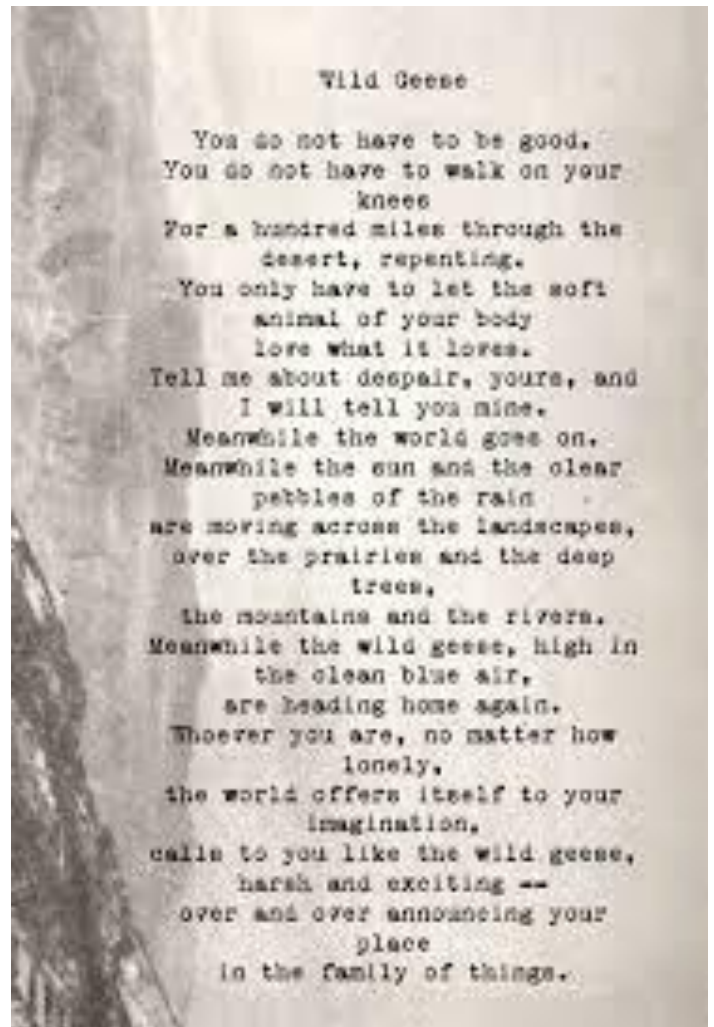
Fleetwood Mac

Line	Predicted Chord	Actual Chord
I took my love	C	C
I took it down	G	Am7
I climbed a mountain	C	C
I turned around	C	Am7, C
I saw my reflection	C	C
In the snow covered hills	C	Am7, C
Until the landslide brought me down	G	C, Am7
Mirror in the sky	C	C
What is love?	Bm	Am7
Can the child with my heart	G	C
Rise above?	Am	Am7
Can I sail through	G	C
The changing ocean tides	C	Am7, C
Can I handle the seasons of my life?	G	C, Am7, B
I've been afraid of changing	C, G	G
Because I built my life	C	C
Around you	D	Am, D7

Let's try it out!

Our first song:

A favorite a poem



Wild Geese (poem by Mary Oliver): Chords

Line	Chord	Line	Chord
You do not have to be good.	D	over the prairies and the deep trees,	G
You do not have to walk on your knees	F	the mountains and the rivers.	G
For a hundred miles through the desert, repenting.	C, C	Meanwhile the wild geese, high in the clean blue air,	G
You only have to let the soft animal of your body	G	are heading home again.	G
love what it loves.	Bm	Whoever you are, no matter how lonely,	G
Tell me about your despair, yours, and I will tell you mine.	C	the world offers itself to your imagination,	D
Meanwhile the world goes on.	C	calls to you like the wild geese, harsh and exciting --	G
Meanwhile the sun and the clear pebbles of the rain	C	over and over announcing your place	G
are moving across the landscapes,	G	in the family of things.	C

Let's try it again!

Our second song:

A favorite wikipedia page

Goose

From Wikipedia, the free encyclopedia

For other uses, see [Goose](#) (disambiguation).

Geese are *waterfowl* of the *family* *Anatidae*. This group comprises the genera *Anser* (the grey geese) and *Branta* (the black geese). *Chen*, a genus comprising 'white geese', is sometimes used to refer to a group of species that are more commonly placed within *Anser*. Some other *birds*, mostly related to the *shelducks*, have "goose" as part of their names. More distantly related members of the family Anatidae are swans, most of which are larger than true geese, and ducks, which are smaller.

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- 1 Etymology
- 2 True geese and their relatives
- 3 Other birds called "geese"
- 4 In popular culture
- 5 Gallery
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- 7 References
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- 9 External links

Etymology

The word "goose" is a direct descendent of Proto-Indo-European root, *ghans-*. In Germanic languages, the root gave Old English *gās* with the plural *gēs* and *gandres* (becoming Modern English goose, geese, gander, and gosling, respectively), *Frisian* *goes*, *gies* and *guoske*, New High German *Gans*, *Gänse*, and *Ganter*, and Old Norse *gás*. This term also gave Lithuanian: *žąsis*, Irish: *gé* (goose, from Old Irish *géiss*), Latin: *anser*, Ancient Greek: *χῆν* (*khên*), Dutch: *gans*, Albanian: *gatë* (heron), Sanskrit *hamsa* and *hamsi*, Finnish: *hanhi*, Avestan *zāō*, Polish: *gęś*, Ukrainian: *гуска / рсак* (*guska / gusak*), Russian: *гусыня / гусь* (*gusyna / gus*), Czech:

husa, and Persian: *گاز* (*ghāz*).^[1]^[2]

The term *goose* applies to the female in particular, while *gander* applies to the male in particular. Young birds before fledging are called *goslings*.^[1] The *collective noun* for a group of geese on the ground is a *gaggle*; when in flight, they are called a *skein*, a *team*, or a *wedge*; when flying close together, they are called a *plump*.^[3]

True geese and their relatives



Snow geese in Quebec, Canada

The three living genera of true geese are: *Anser*, grey geese, including the *greylag goose*, and domestic geese; *Chen*, white geese (often included in *Anser*); and *Branta*, black geese, such as the *Canada goose*.

Two genera of geese are only tentatively placed in the Anserinae; they may belong to the shelducks or form a subfamily on their own: *Cereopsis*, the Cape Barren goose, and *Cnemiornis*, the prehistoric New



Chinese geese, the domesticated form of the swan goose

Zealand goose. Either these or, more probably, the goose-like *Coscoroba swan* is the closest

Geese (Waterfowl): Chords

Line	Chord	Line	Chord
Geese are waterfowl of the family Anatidae.	G	Paired geese are more dominant and feed more	C
More distantly related members of the family Anatidae are swans	C	two factors that result in more young	C
most of which are larger than true geese	G	The term goose applies to the female in particular	C
and ducks, which are smaller.	G	while gander applies to the male in particular	C
Geese are monogamous,	G	Young birds before fledging are called goslings	G
living in permanent pairs throughout the year	C	The collective noun for a group of geese on the ground is a gaggle	C
however, unlike most other permanently monogamous animals	G	when in flight, they are called a skein, a team, or a wedge	D, G
they are territorial only during the short nesting season	C	when flying close together, they are called a plump	G, D

Next Steps :

- Improve accuracy
- Incorporate music theory
- Chord change timing
- Transpose for capos
- Sentiment Analysis
- Genre generator
- Recommend similar artist

THANK YOU!

Questions?

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