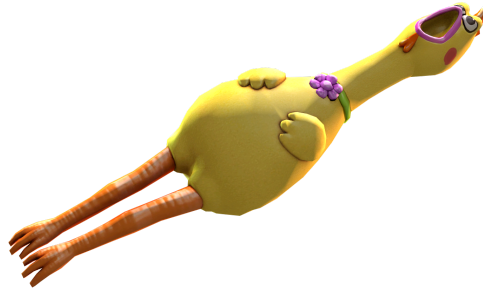


FOXDOT

AND THE SUMMER OF

2019



LIGHTNING TALKS

- 5 minutes
- no CFP
- no Q&A



Russell Keith-Magee

@freakboy3742



Anybody who ever says Australians are weird: Cthulhu is currently on stage at [@pythonbrasil](#)

[Traduzir Tweet](#)



6:31 PM · 16 de out de 2016 de [Ilha Florianópolis, Florianópolis](#) · [Tweetbot for iOS](#)

↻ Você retweetou



Mário Sérgio @sergiomarioq · 10 de out de 2017

Stand by me <3



Python Brasil @pythonbrasil · 10 de out de 2017

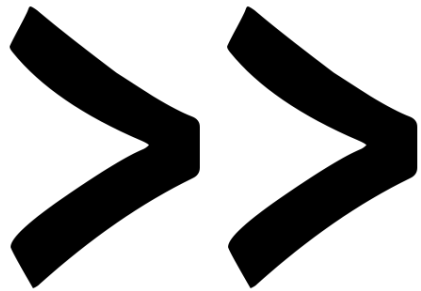
O que dizer da comunidade python? Só amor ❤️ #pybr13
#uaipython



505 visualizações

0:05 / 0:15

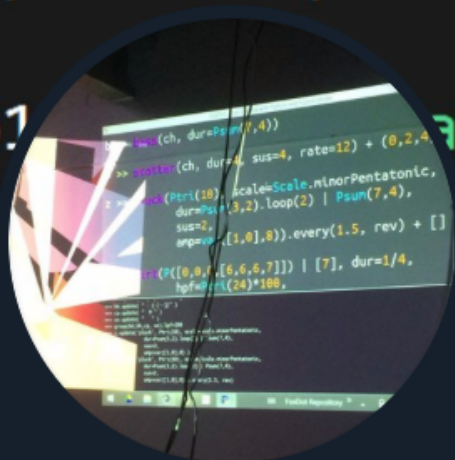




what is FoxDot?

```
d1 >> play(P["X{-[--][-x]}0{-[--]0}"].stutter(3), sa  
mple=2, lpf=var([0,400],[28,4]))
```

```
b1 >> var([0,1,5,3],8), dur=PDur(3,8)*2, sus=2,  
s >> op=4) + [0,7]
```



...

Seguindo

FoxDot

@FoxDotCode

Official twitter account for FoxDot; the Python based language for live coding

[Traduzir bio](#)

foxdot.org  Ingressou em junho de 2017

123 seguindo **622** seguidores



Seguido por Ryan Kirkbride e Algorave



Seguindo

Ryan Kirkbride

@ryankirkbride26

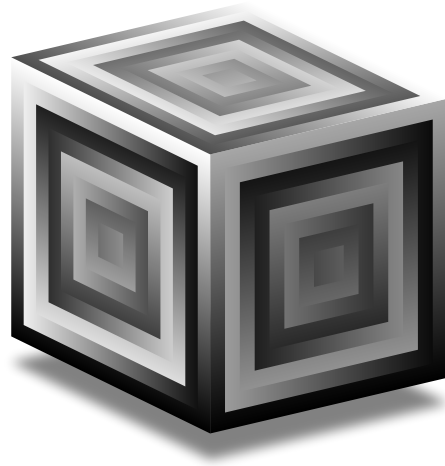
PhD Student at the University of Leeds researching collaboration in Live Coding. Developer of [@FoxDotCode](#), live coder and member of [@TYPEensemble](#)

[Traduzir bio](#)

Leeds, England ryan-kirkbride.github.io

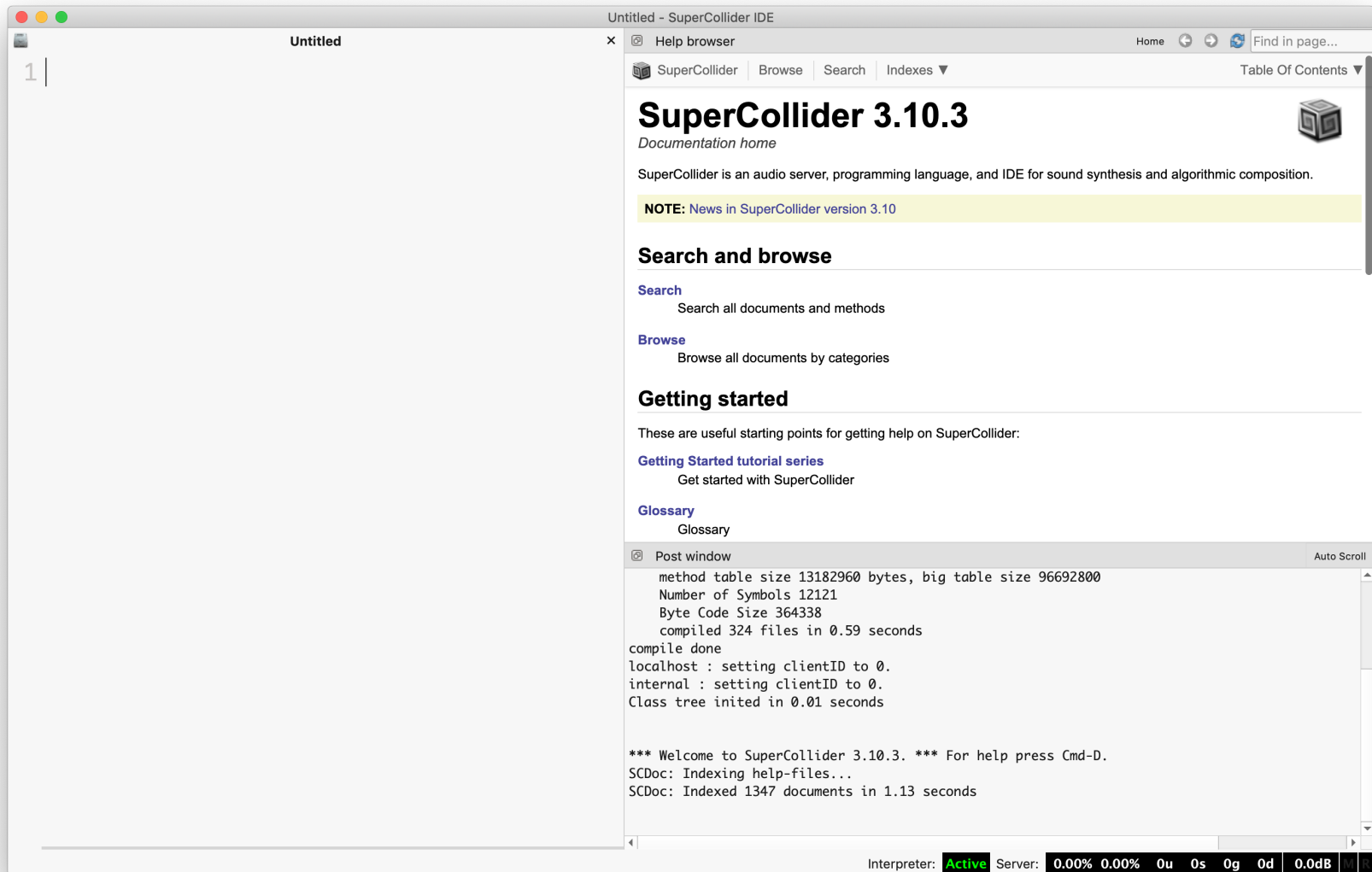
Ingressou em outubro de 2015

445 seguindo **604** seguidores



SuperCollider

SuperCollider editor



SuperCollider syntax

The screenshot displays the SuperCollider IDE interface. The main window is titled "Untitled" and contains a code editor with the following SuperCollider code:

```
1 // Simple synth definition using the Atari2600 UGen:
2 (
3   SynthDef(\atari2600, {lout= 0, gate= 1, tone0= 5,
4     tone1= 8, freq0= 10, freq1= 20, amp= 1, pan= 0|
5     var e, z;
6     e= EnvGen.kr(Env.asr(0.01, amp, 0.05), gate,
7       doneAction:2);
8     z= Atari2600.ar(tone0, tone1, freq0, freq1, 15, 15);
9     Out.ar(out, Pan2.ar(z*e, pan));
10  })
11 )
12 // And a pattern to play it:
13 (
14   Pbind(
15     \instrument, \atari2600,
16     \dur, Pseq([0.25, 0.25, 0.25, 0.45], inf),
17     \amp, 0.8,
18     \tone0, Pseq([Pseq([2, 5], 32), Pseq([3, 5], 32)],
19       inf),
20     \tone1, 14,
21     \freq0, Pseq([Pbrown(28, 31, 1, 32),
22       Pbrown(23, 26, 3, 32)], inf),
23     \freq1, Pseq([Pn(10, 16), Pn(11, 16)], inf)
24   ).play
25 )
```

The right-hand pane is titled "Help browser" and shows the "SuperCollider 3.10.3" documentation page. The page includes a "Table Of Contents" dropdown, a "Search" bar, and sections for "Search and browse", "Getting started", and "Glossary". The "Post window" at the bottom right displays the following output:

```
0 : "Built-in Microph"
1 : "Built-in Output"

"Built-in Microph" Input Device
Streams: 1
0 channels 2

"Built-in Output" Output Device
Streams: 1
0 channels 2

SC_AudioDriver: sample rate = 44100.000000, driver's block size = 512
SuperCollider 3 server ready.
Requested notification messages from server 'localhost'
localhost: server process's maxLogins (1) matches with my options.
```

The status bar at the bottom indicates the "Interpreter: Active" and "Server: 0.03% 0.14% 0u 0s 2g 107d 0.0d8".

SuperCollider with FoxDot

The screenshot shows the SuperCollider IDE interface. On the left, a file named `FoxDot.start` is open in the editor. The main window displays the SuperCollider 3.10.3 documentation page, which includes a search bar, a table of contents, and sections for search and browse, getting started, and glossary. The bottom right corner features a post window showing the output of the code, including stream and channel information, and a status bar at the bottom displaying interpreter and server status.

Untitled - SuperCollider IDE

Help browser

SuperCollider 3.10.3

Documentation home

SuperCollider is an audio server, programming language, and IDE for sound synthesis and algorithmic composition.

NOTE: [News in SuperCollider version 3.10](#)

Search and browse

Search
Search all documents and methods

Browse
Browse all documents by categories

Getting started

These are useful starting points for getting help on SuperCollider:

[Getting Started tutorial series](#)
Get started with SuperCollider

[Glossary](#)
Glossary

Post window

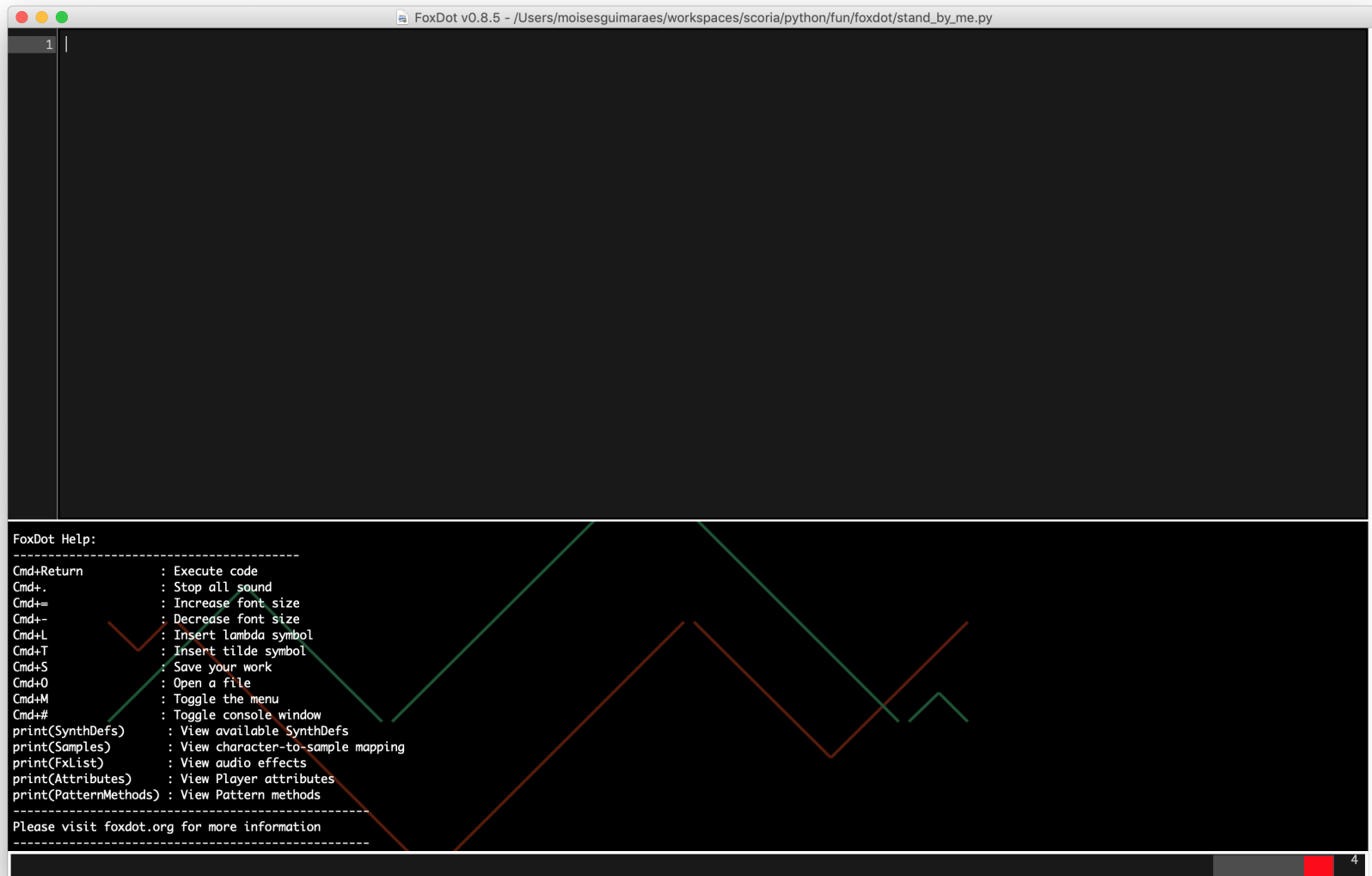
Streams: 1
0 channels 2

"Built-in Output" Output Device
Streams: 1
0 channels 2

SC_AudioDriver: sample rate = 44100.000000, driver's block size = 512
SuperCollider 3 server ready.
Requested notification messages from server 'localhost'
localhost: server process's maxLogins (1) matches with my options.
localhost: keeping clientID (0) as confirmed by server process.
Shared memory server interface initialized

Interpreter: **Active** Server: 0.03% 0.06% 0u 0s 2g 107d 0.0d8

FoxDot editor



FoxDot 101

```
FoxDot v0.8.5 - /Users/moisesguimaraes/workspaces/scoria/python/fun/foxdot/europython.py

1 k1 >> pluck()
2
3 k1 >> pluck(0)
4
5 k1 >> pluck(2)
6
7 k1 >> pluck([0, 2, 4])
8
9 k1 >> pluck((0, 2, 4))
10
11 k1 >> pluck((0, 2, 4) + 1)
12
13 k1 >> pluck(P(0, 2, 4) + 1)
14
15 k1.stop()|
16
17 d1 >> play("V ")
18
19 d1 >> play("V-o-V-o-V-o-V-o[--]")
20
21 d1.stop()
22

>>> k1 >> pluck(0)
>>> k1 >> pluck(2)
>>> k1 >> pluck([0, 2, 4])
>>> k1 >> pluck((0, 2, 4))
>>> k1 >> pluck((0, 2, 4) + 1)
Traceback (most recent call last):
  File "/Users/moisesguimaraes/workspaces/scoria/python/fun/foxdot/venv/lib/python3.7/site-packages/FoxDot/lib/Code/main_lib.py", line 155, in __call__
    exec(self._compile(code), self.namespace)
  File "FoxDot", line 2, in <module>
TypeError: can only concatenate tuple (not "int") to tuple

>>> k1 >> pluck(P(0, 2, 4) + 1)
>>> k1.stop()
```

SynthDefs

```
FoxDot v0.8.5 - /Users/moisesguimaraes/workspaces/scoria/python/fun/foxdot/players.py
1 A = P(0, 2, 4)
2 Fm = A - 2
3 D = A + 3
4 E = A - 3
5 chords = [A, A, A, A, Fm, Fm, Fm, Fm, D, D, E, E, A, A, A, A]
6
7 p1 >> noise(chords)
8
9 p1 >> dab(chords)
10
11 p1 >> varsaw(chords) #
12
13 p1 >> lazer(chords)
14
15 p1 >> growl(chords)
16
17 p1 >> bass(chords)
18
19 p1 >> dirt(chords) #
20
21 p1 >> crunch(chords)
22
23 p1 >> rave(chords)
24
25 p1 >> scatter(chords)
26
27 p1 >> charm(chords)
28
29 p1 >> keys(chords)
>>> p1 >> dbass(chords)
>>> p1 >> sinepad(chords)
>>> p1.stop()
```

3

FoxDot Lightning Talks

```
FoxDot v0.8.5 - /Users/moisesguimaraes/workspaces/scoria/python/fun/foxdot/stand_by_me.py
1 from FoxDot.lib.Chords import *
2 #
3 ## settings
4 Scale.default="major"
5 Root.default="A"
6 Clock.bpm = 118
7 #
8 ## bass
9 rhythm_1 = [3/2, 3/2, 1/2, 1/2]
10 rhythm_2 = [3/2, 3/2, 1]
11 bassline = [
12     0, 0, -3, -1,
13     0, 0, 0, -1,
14     -2, -2, -3,
15     -2, -2, -2, -3,
16     -4, -4, -4, -2,
17     -3, -3, -3, -1,
18     0, 0, -3, -1,
19     0, 0, -3, -1
20 ]
21 #
22 ## keyboard
23 k1 >> pluck([I, VI, IV, V, I], dur=[8, 8, 4, 4, 8])
24 #
25 b1 >> bass(bassline, dur=2 * rhythm_1 + rhythm_2 + 5 * rhythm_1)
26 #
27 d1 >> play(" H ")
... #
... b1 >> bass(bassline, dur=2 * rhythm_1 + rhythm_2 + 5 * rhythm_1)
... #
... d1 >> play(" H ")
```

1



EUROPYTHON 2019



Moisés Guimarães @moisesguimaraes · 28 de out de 2018

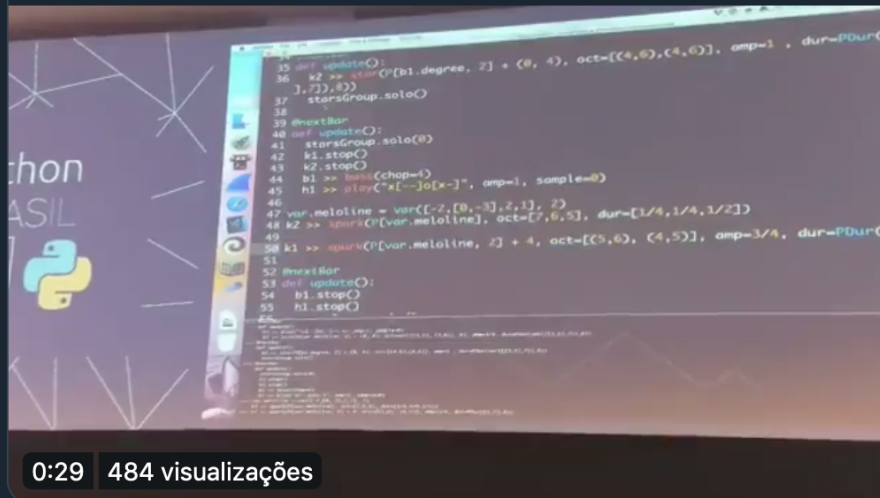
#foxtot @ #pythonbr14



Rafael Henrique @rafaelhenrique · 19 de out de 2018

Moisés mandando muuuuuuito bem na Lightning talk dele na #PythonBR14 Sensacional!

[Mostrar esta sequência](#)



↻ Você retweetou



Python Pizza @pythonpizzaconf · 5 de ago de 2019



It's official! MC Cthulhu (@moisesguimaraes) is gonna join us for berlin.python.pizza



💬 1

↻ 1

❤️ 20



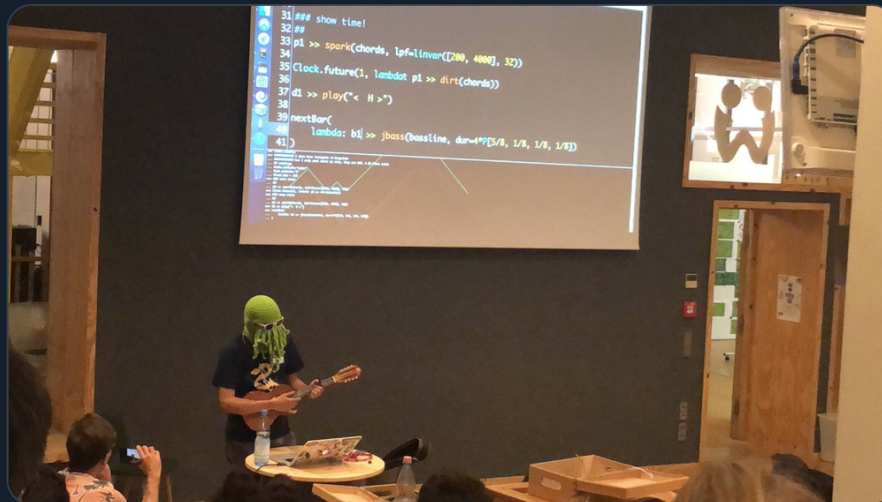
↻ Você retweetou



Anastasiia Tymoshchuk @anastasiatymo · 23 de ago de 2019



Awesome talk by @moisesguimaraes @pythonpizzaconf



💬 1

↻ 4

♡ 13



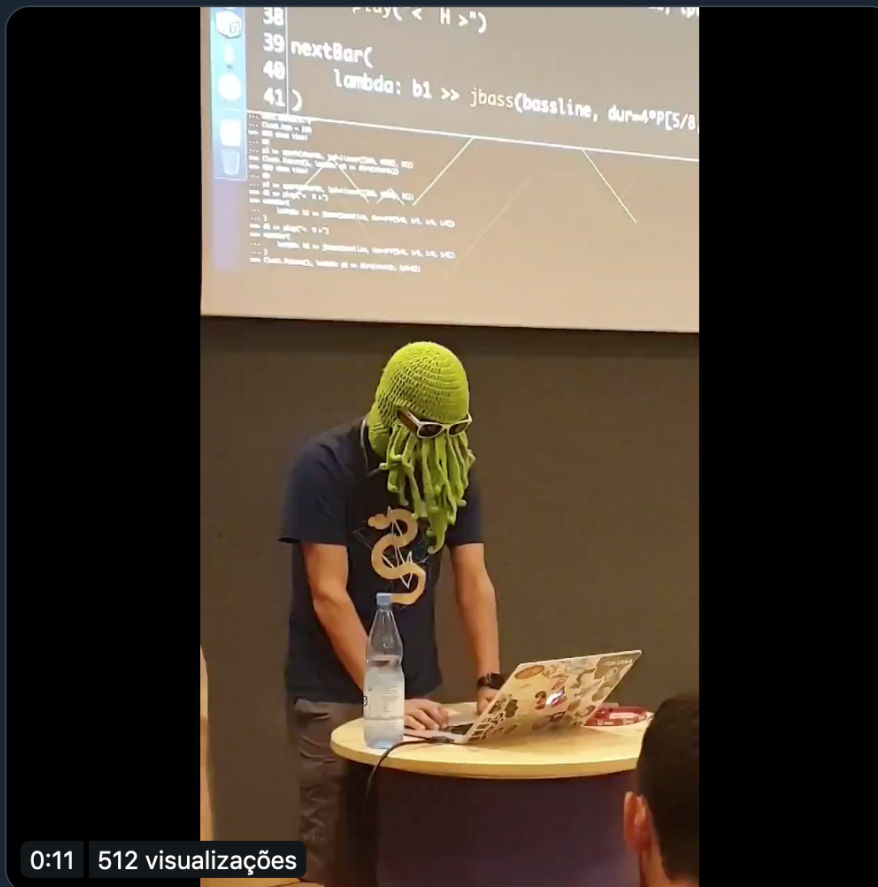
🔄 Você retweetou



Érico Andrei @ericof · 23 de ago de 2019



Kudos to @moisesguimaraes for signing, playing, dancing & coding during a 10 minutes talk. #berlinpythonpyzza #pythonbrasil @pythonpizzaconf



🔄 5

♡ 24



```
# Stand by Me
```

```
from FoxDot.lib.Chords import *
```

```
#
```

```
## settings
```

```
Scale.default="major"
```

```
Root.default="A"
```

```
Clock.bpm = 118
```

```
#
```

```
## bass
```

```
rhythm_1 = [3/2, 3/2, 1/2, 1/2]
```

```
rhythm_2 = [3/2, 3/2, 1]
```

```
bassline = [
```

```
    0, 0, -3, -1, 0, 0, 0, -1, -2, -2, -3, -2, -2, -2, -3,  
    -4, -4, -4, -2, -3, -3, -3, -1, 0, 0, -3, -1, 0, 0, -3, -1
```

```
]
```

```
#
```

```
## keyboard
```

```
k1 >> pluck([I, VI, IV, V, I], dur=[8, 8, 4, 4, 8])
```

```
#
```

```
b1 >> bass(bassline, dur=2 * rhythm_1 + rhythm_2 + 5 * rhythm_1)
```

```
#
```

```
d1 >> play(" H ")
```

```
# 4 Chords song
```

```
Scale.default="major"
```

```
Root.default="E"
```

```
Clock.bpm = 116
```

```
I = P*((2, 4), 0)
```

```
V = I + 4
```

```
VI = I + 5
```

```
IV = I + 3
```

```
chords = var([I, V, VI, IV], 4)
```

```
p1 >> pluck(chords)
```

```
bassline = [0, 1, 2, 4, 4, 5, 6, 5, 5, 6, 7, 3, 3, 6, 7, 0]
```

```
b1 >> bass(bassline, dur=4*P[5/8, 1/8, 1/8, 1/8])
```

```
p1 >> spark(chords, lpf=linvar([200, 4000], 32))
```

```
Clock.future(16*6, lambda: p1 >> dirt(chords))
```

```
d1 >> play("< H >")
```

```
nextBar(
```

```
    lambda: b1 >> jbass(bassline, dur=4*P[5/8, 1/8, 1/8, 1/8])
```

```
)
```



THANK YOU!

GUIMARAES+TALKS@PM.ME

[HTTPS://MOISESGUIMARAES.COM/TALKS/](https://moisesguimaraes.com/talks/)