

Haskell

Learn You a Haskell for Great Good!

@linse@hachyderm.io

What is your language called?

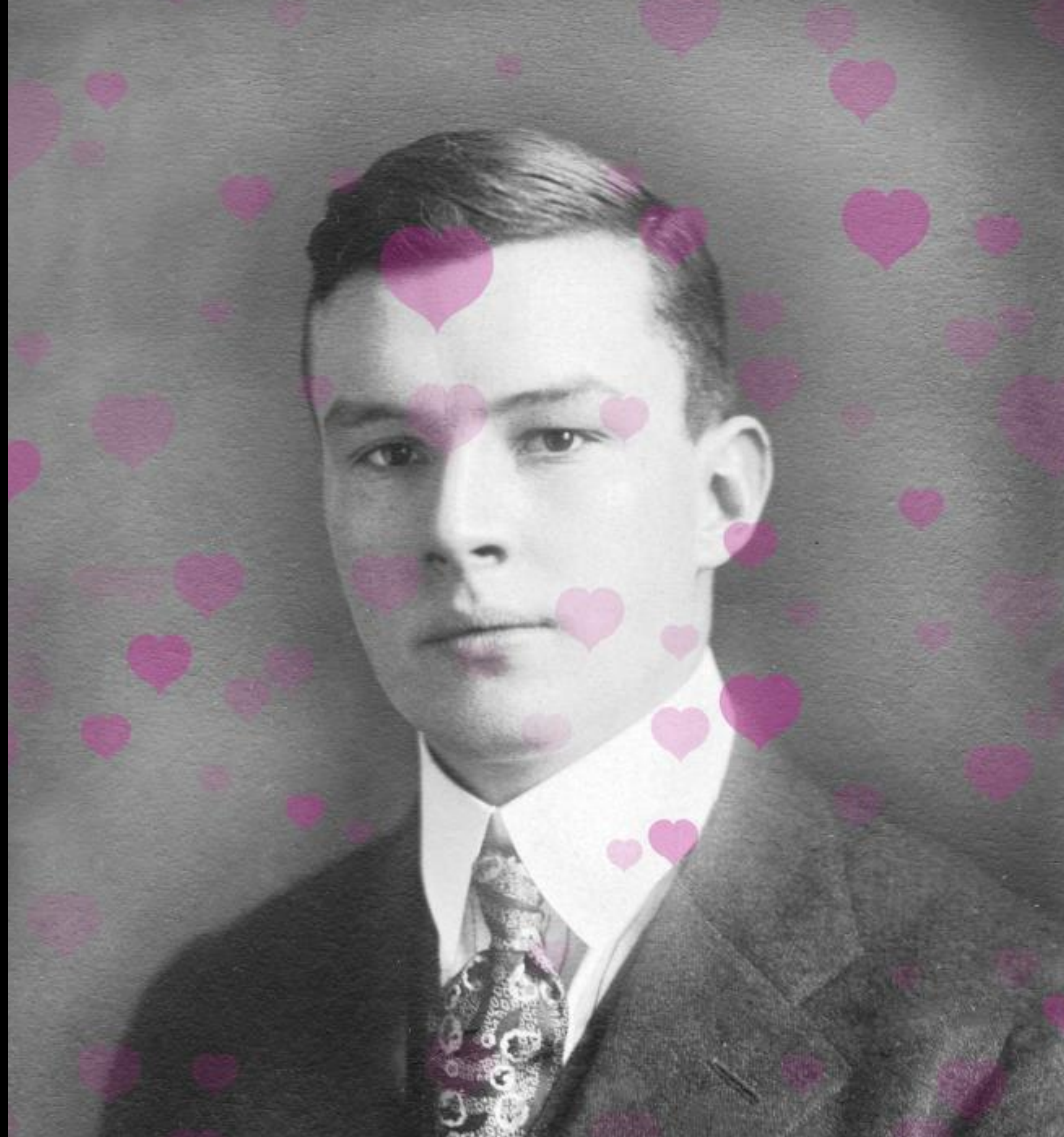
Does it mean something, refer to something?

Some fun fact about the name?

Haskell B Curry

American mathematician and logician

- Topic: Combinatorial logic
- Colleague of Moses Schönfinkel
- Three PLs to his name:
 - Haskell
 - Brook
 - Curry

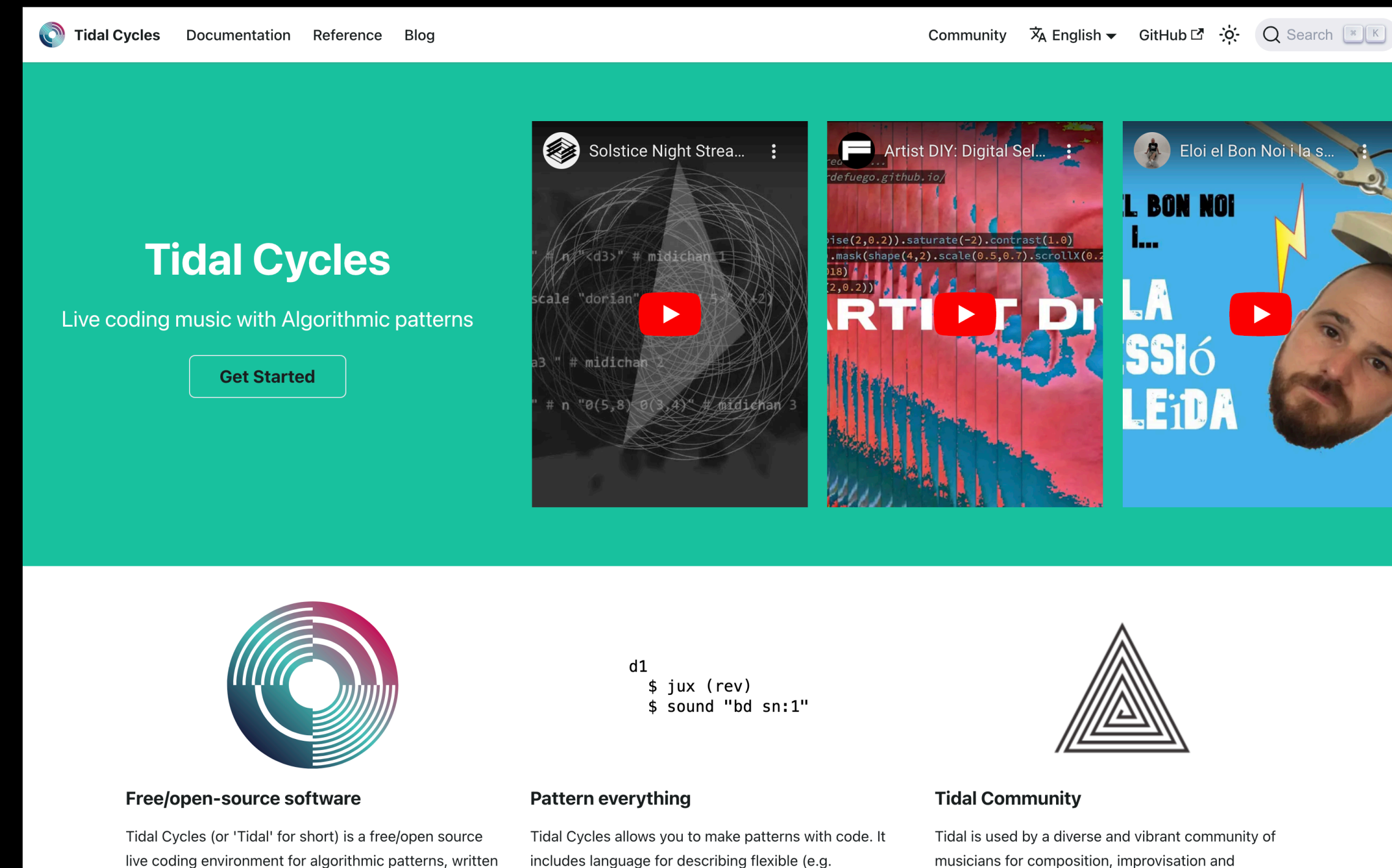


Hard Facts

- Compiled or interpreted: Why not both!
 - `ghc (i)`
- Type system: Static typing, Hindley-Milner type system
 - What is static typing?
 - What is this type system?
- Programming Paradigm: Functional Programming
 - What is FP?

What is the language used for or known for?

- learning computer science
- writing Domain Specific Languages
- rapid prototyping
- live coding



Tidal Cycles

Live coding music with Algorithmic patterns

Get Started

Solstice Night Strea...

Artist DIY: Digital Sel...

Eloi el Bon Noi i la S...

L BON NOI
L...
LA
SSIÓ
LEiDA

d1
\$ jux (rev)
\$ sound "bd sn:1"

Free/open-source software

Tidal Cycles (or 'Tidal' for short) is a free/open source live coding environment for algorithmic patterns, written

Pattern everything

Tidal Cycles allows you to make patterns with code. It includes language for describing flexible (e.g.

Tidal Community

Tidal is used by a diverse and vibrant community of musicians for composition, improvisation and

What is the community like? Are there in-person meetups or conferences? Active discords or other chats? Do you interact with the community often and this is this relevant for your language?

- Bros and math professors is not the full truth. :D
- online <https://www.haskell.org/community/>
- in-person <https://zfoh.ch/zurihac2023/>



Why did you learn the language? Was it the language you learned programming in?

- first language in University
- great equalizer - not a lot of students know this language before!
- trains your brain to think in recursion

Do you actually like programming in this language? Why?
Or what's your favorite feature in this language? Can also
be a cool library or something from the ecosystem

- intuitive recursion

```
isort :: [Int] -> [Int]
isort (x:xs) = insert (isort xs)
isort [] = []
```

```
insert (y:ys)
| x < y = x : y : ys
| otherwise = y : insert ys
```


Do you actually like programming in this language? Why?
Or what's your favorite feature in this language? Can also
be a cool library or something from the ecosystem

- list comprehensions:
 - expression `[(i,j) | i <- [1,2], j <- [1..4]]`
 - yields `[(1,1) , (1,2) , (1,3) , (1,4) , (2,1) , (2,2) , (2,3) , (2,4)]`
- (live) music
 - [making music with Haskell from scratch](#)
 - https://wiki.haskell.org/Applications_and_libraries/Music_and_sound

Tutorial

- <http://learnyouahaskell.com/chapters>
- in-browser:
 - <https://www.tryhaskell.org/>
 - [https://www.onlinegdb.com/
online haskell compiler](https://www.onlinegdb.com/online_haskell_compiler)
- Have Fun!

