

How to get more contributors on Python?

Tech is easy.
People are hard.

Pycon FR 2018, Lille
Victor Stinner



redhat[®]

Python is all about code

~~Python is all about code~~

LIAR

Python is all
about people



Burnout

Burnout

- Last february
- Unsubscribed from 7 Python mailing lists
- Closed all my pull requests
- Notifications → /dev/null
- Doctor → One month off
- No commit for 3 months $\frac{1}{2}$

Burnout

Previous
typical
INBOX:

PyBB (15)

PyBPO (25)

PyBZ (114)

PyCommitters (1)

PyCoreMentor

PyDev (3)

PyGitHub (5)

PyMaint (115)

PySecurity (1)

PythonList

Burnout

- Time to step back
- Too many responsibilities
- I was working 13h per day in average
- Burnout is complex (there are other reasons, will not elaborate here)

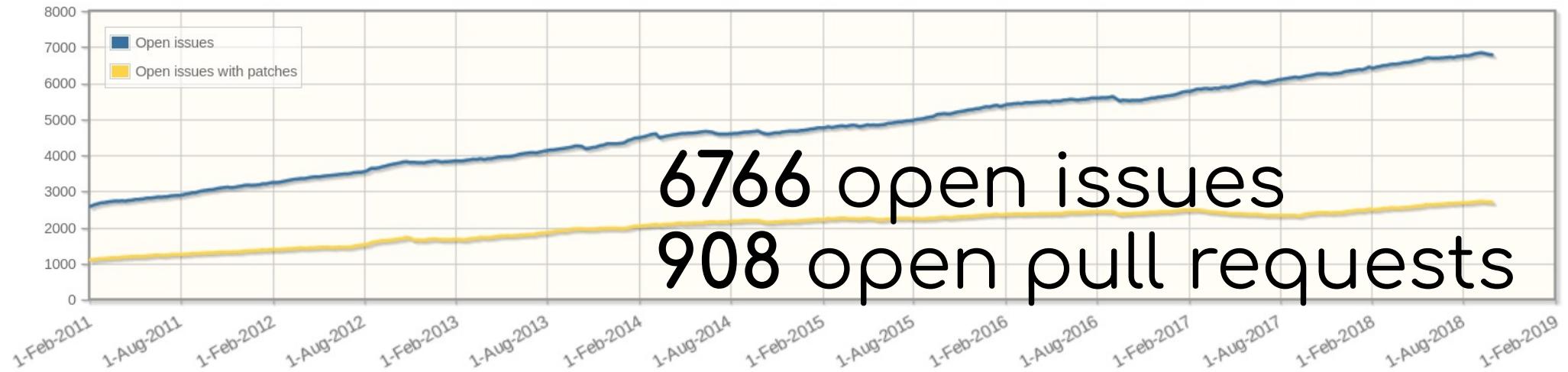
Open source

Problem

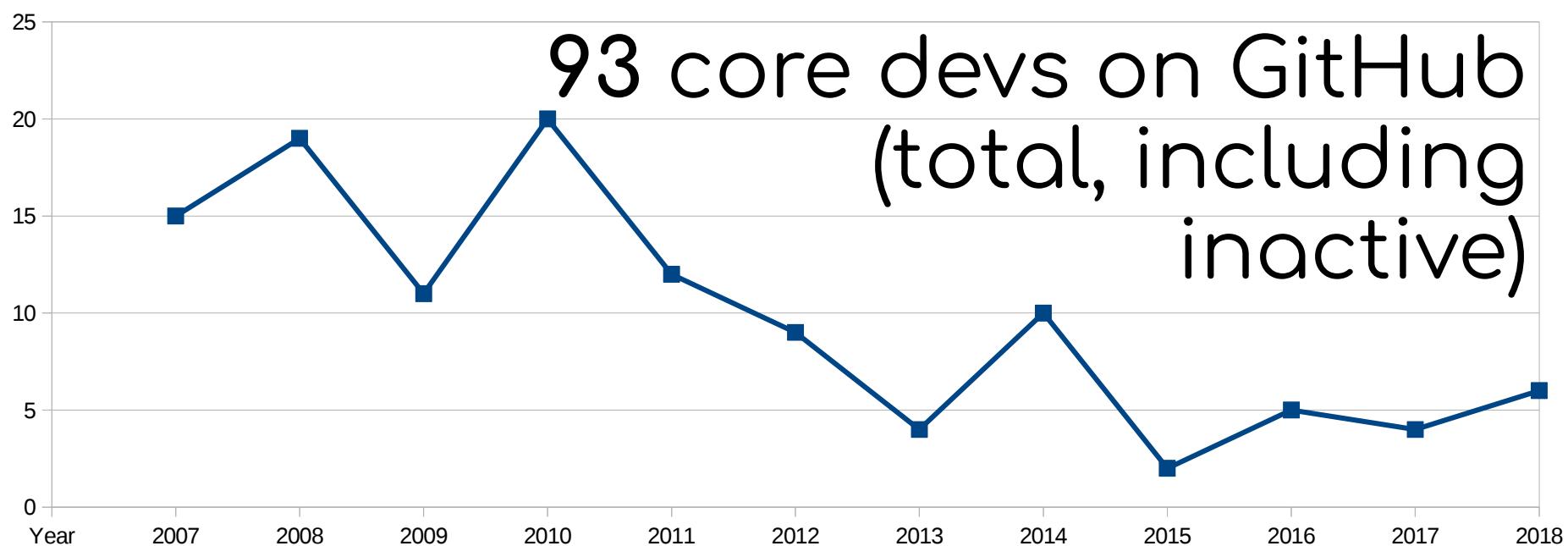
- I don't scale
- Increasing work quantity
- Decreasing number of new core devs



Open issues (2011-2018)



New core devs per year (2007-2019)



How you think Open Source apps are maintained



How Open Source apps are really maintained



“We are all volunteers”

- Contributors give their free time to Python: evenings, weekends, maybe even part of their nights.
- Trade time between family/friends and Python.
- Few employers allow to work on Python upstream.



“We are all volunteers”

- Red Hat: I am paid full time to maintain Python upstream and downstream.
- Microsoft: **Brett Cannon, Barry Warsaw, Eric Snow, Steve Dower** have one day per week.
- Dropbox: **Guido van Rossum** has one day per week.
- Total: **2 dev full time**.
- TIOBE: Python is **#3**.





PLEASE MERGE ME

“Think of a contribution like a puppy: you might view it as this cute, wonderful thing you're giving me while I'm looking at it as over a decade of feeding, walking, and vet bills.”
– Brett Cannon

Past Actions



- Developer guide
- Migration to Git on GitHub
- Linux and Windows CI run on pull requests
- ... core devs remain the bottleneck

“You can’t solve people problems with software.”
– Baldur Bjarnason

Diversity Problems

There is no public complain,
so there is no diversity issue, right?
Right? ...

Diversity



“When women speak out about diversity and the community, they get **penalized** and branded as non-technical. Some women chose **not to speak** out because of this. **We will not be silenced.**” – Mariatta Wijaya

Diversity



Attending Pycon US costs 1500-3000\$, one week, VISA for USA, etc. Language Summit and CPython sprint remain important for networking with core devs, but are invite-only events.

Diversity



Toxicity

- Attacking a person, rather than the person's argument
- Attack in public space or private space.
- Misogyny
- Bullying
- Racism



WARNING: incoming shitstorm!



- # **master pattern** object
 - + # **main pattern** object
- I modified 7 lines...
(doc & comments)
- in **master process** and freeze before fork ...
 - + in **parent process** and freeze before fork ...
- multiprocessing: stop the **master process** somehow
 - + multiprocessing: stop the **parent process** somehow
- # This method (and its **pliant slaves**, like 'finalize_unix()',
 - + # This method (and its **helpers**, like 'finalize_unix()',
- # OptionParser: create the **master option mappings**
 - + # OptionParser: create the **main option mappings**
- # test_ssl: Force different suites on **client and master**
 - + # test_ssl: Force different suites on **client and server**
- buildbot Batchfiles for running on Windows **buildslaves**.
+buildbot Batchfiles for running on Windows **buildbot workers**.

- 30+ articles in 1 week: The Register, Russia Today, Breitbart, developpez.com, Hacker News, Motherboard VICE, Slashdot, 4chan, OSChina, Twitter, Weibo, ...
- Mention my full name and employer
- English, Russian, Japanese, Mandarin, German, French, Czech, ...
- Slashdot: 1200 comments in 2 days

"Fuck you Victor Stinner.
You're the enemy of /g/
now. Eat shit. I'll probably
make a video about this
gay shit."

- Anonymous, 4chan

"I would like him dead."
- Anonymous, 4chan

...
short
break
with
an
adorable
panda
...

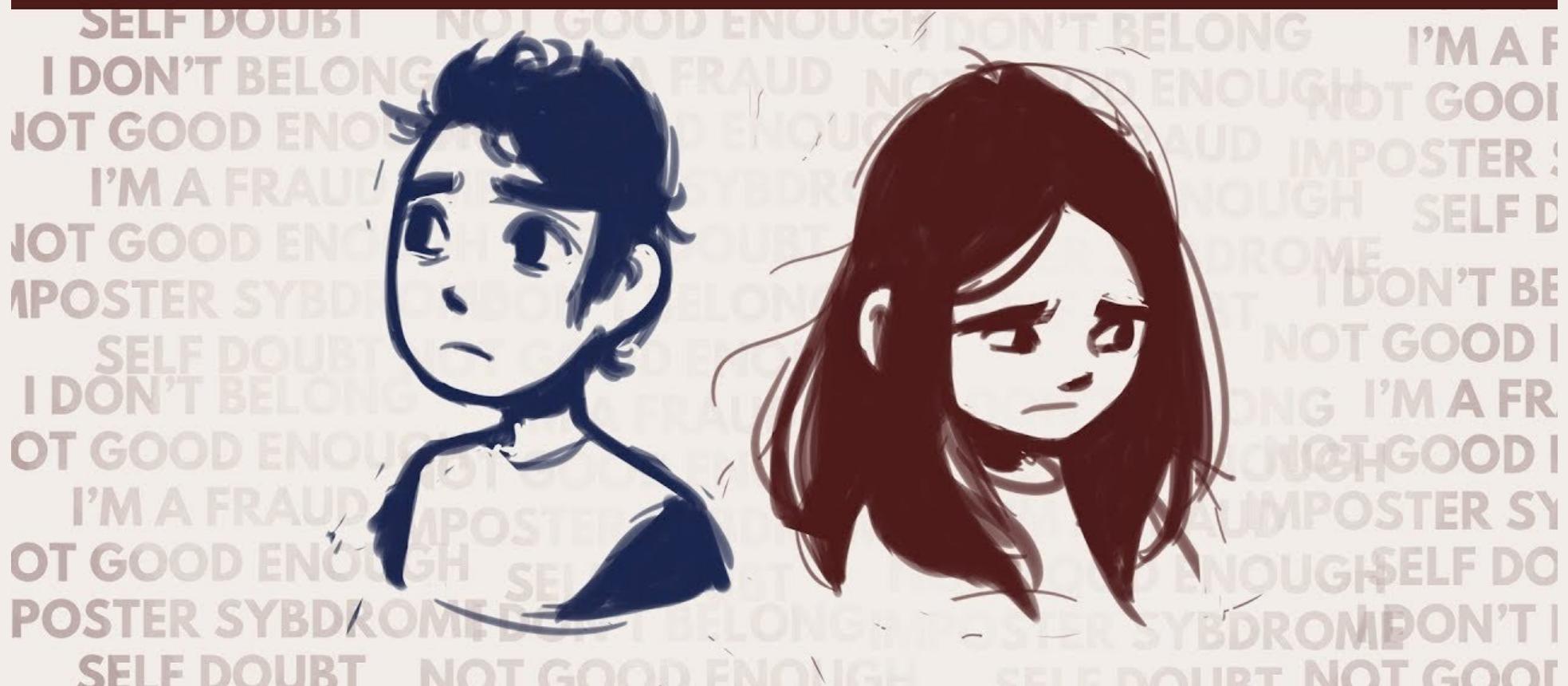


Diversity Solutions

“Unconscious biases are social stereotypes about certain groups of people that individuals form outside their own conscious awareness.”



IMPOSTER SYNDROME



Impostor syndrome is a psychological pattern in which an individual doubts their accomplishments and has a persistent internalized fear of being exposed as a "fraud".

Code of Conduct

- No Code of Conduct (CoC)
- CoC applied to mailing lists, bug tracker, python.org
- CoC applied to Pycon events
- May 2018: Pycon US had a well defined process to report violations
- PSF now requires CoC on Pycon events
- General discussion on how to handle reports and bans

INADA Naoki (Japan) promoted as core dev
in 2016: BDFL-delegate of PEP 538 (C locale
coercion) and PEP 540 (UTF-8 Mode). People
in the USA are happy with ASCII, Japanese
people care more about Unicode.

Diversity



Mentoring

Positive Action

- Pycon US 2016, **Guido van Rossum** encouraged women to contact him for mentorship
- He mentored **Mariatta Wijaya** who became the first woman core dev in January 2017



Positive Action

- May 2017: Carol Willing
- Sept 2018: Lisa Roach and Emily Morehouse
- 2016: 0 woman core dev
- 2017: 2 woman core dev
- 2018: 4 woman core dev



“Give a Man a Fish,
and You Feed Him for a Day.
Teach a Man To Fish,
and You Feed Him for a Lifetime.”



Mentoring

I mentored **Pablo Salgado**,
January-June 2018.
Became a core in June.



Mentoring

Communities



- “Women Who Love Coding in Python”
- Events in Australia, Brazil, France, India, Netherlands, Nigeria, Taiwan, ...
- pyladies.com

pyladies



<Trans○Code/>

- “The event that aims to help draw attention to transgender issues through a topic-focused hackday.”
- Latest event:
PyLondonium
(London, UK)
- trans-code.github.io





Creation of trans.tech (previous website)

django girls

- “We inspire women to fall in love with programming.”
- 733 events: Cameroon, Finland, France, Ghana, India, Japan, Spain, Switzerland,
- djangogirls.org

DIANGO

STRONG



Conclusion

Take away

- Core developers are the bottleneck
- We are aware that Python has “people issues”
- Mentoring is efficient to train contributors as future core devs
- Code of Conduct reduces the toxicity



“Increasing the core’s diversity is a very important goal to ensure the future health of Python.”
– Guido van Rossum





“Come for the Language,
Stay for the Community”
– Brett Cannon

Next steps

- Core dev process
- Mentoring guide
- Contributor tutorial

cpython-core-tutorial.rtfd.io