

# Growing a Python community at an enterprise scale

Engineering

Bloomberg

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# Overview

- What is Bloomberg
- The start of Python at Bloomberg
- The growth of Python at Bloomberg
- Python Infrastructure
- The Python Guild
- How the guild works & focus groups
- What we have achieved



# What is Bloomberg?



The **Bloomberg Terminal** is software that delivers a diverse array of information, news and analytics to facilitate financial decision-making.

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# What is Bloomberg?

- A technology company, headquartered in NYC
- Founded in 1981
- **325,000+ subscribers** in 170 countries
- Approximately **20,000 employees** in 167 locations around the world

# What is Bloomberg?

- 6,000+ software engineers
- 150+ technologists and data scientists devoted to machine learning
- One of the largest private networks in the world
- 120 billion pieces of data from the financial markets each day, with a peak of more than 10 million messages/second
- 2 million news stories ingested / published each day (500+ news stories ingested/second) with news content from 125K+ sources.
- Over 1 billion messages and Instant Bloomberg (IB) chats handled daily

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# Python @ Bloomberg in the shadows



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# A monster is born!



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# An opportunistic monster was born



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# Let's do SOA

myservice

- CreateItemRequest
- ReadItemRequest
- ProcessOrderRequest
- TransformOrderRequest
- CleanKitchenRequest
- CallUserAboutItemRequest
- PerformTaxDeclarationRequest
- UnrelatedRequest
- WhatIsTheAirspeedVelocityOfAnUnladenSwallow

# A community was born



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# A community was born



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# A community was born



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# Isn't Python too slow?



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**Wait, this is so fast!**



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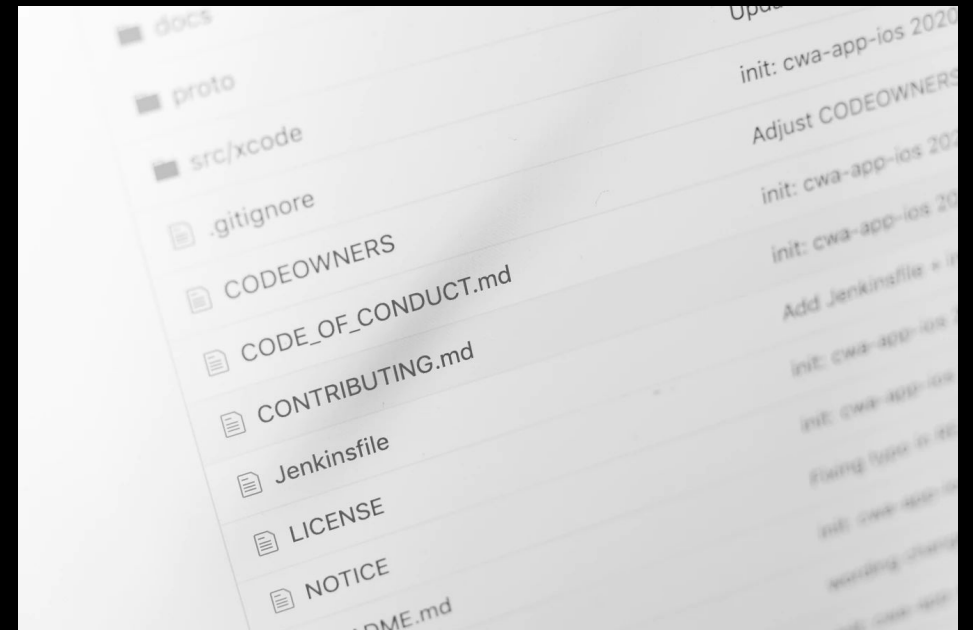
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# External engagement to foster internal

- Contributing to CPython and other projects
- Talks and sponsoring at conferences
- Hosting external events.
- PyLondinium
- + 1 on recruiting
- + 1 on retention
- + 1 on skill





# Python Infrastructure





# Python Guild

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# No magic

- Active community
- Hard work
- Management buy-in
- Iterative reform

# Our definition of Guilds and Guild Leaders

Communities centered on specific technical topics of interest and for the advancement of technology in Bloomberg.

Guild Leaders are charged to influence the use of the technology internally and engage with the technology community externally.



# Guild organisation



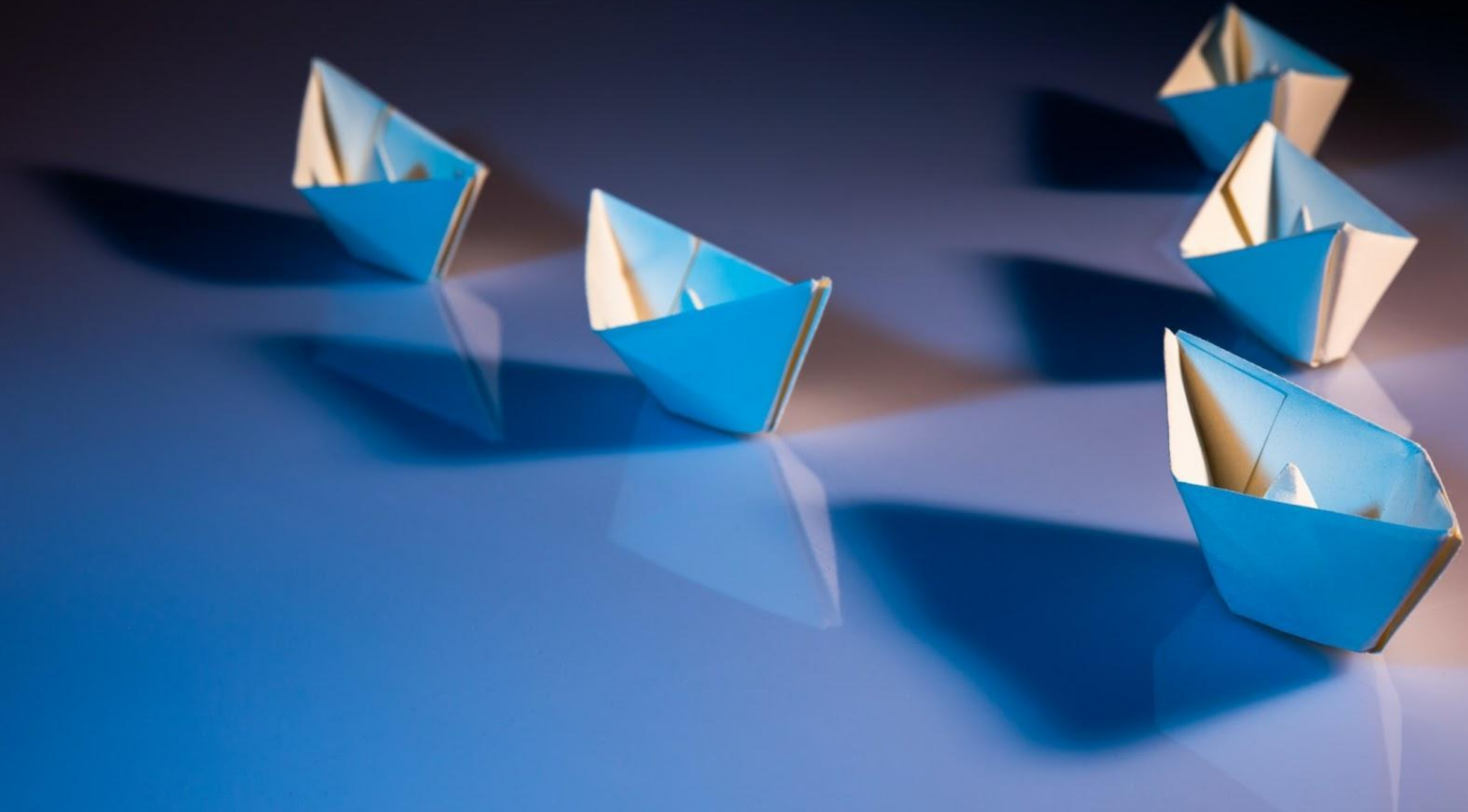
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# Guild organisation



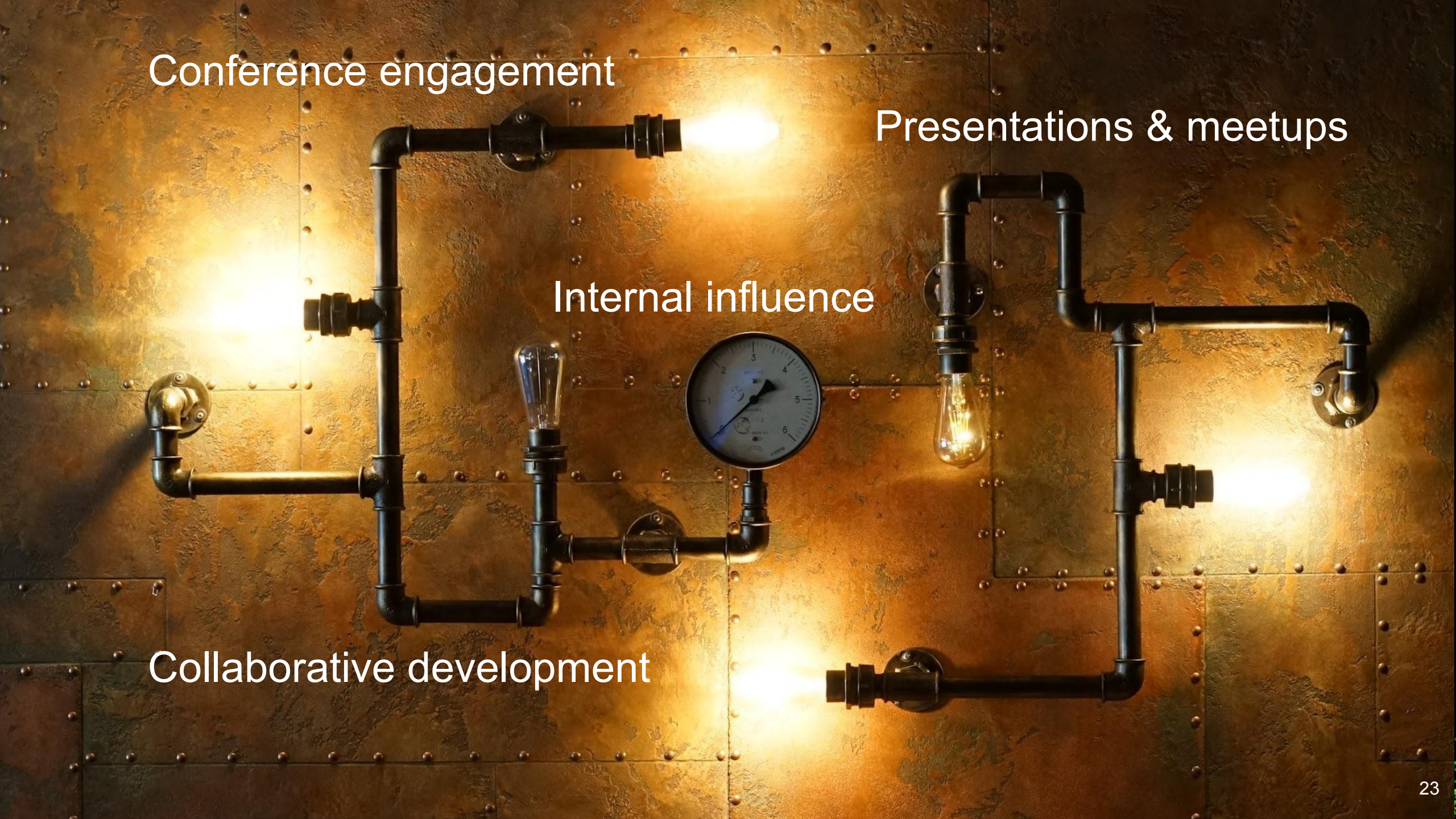


Conference engagement

Presentations & meetups

Internal influence

Collaborative development





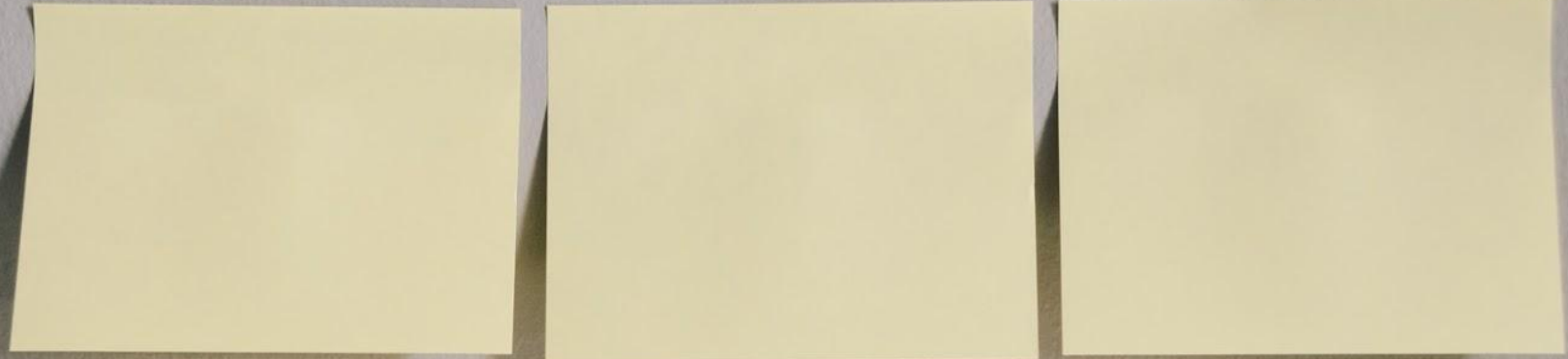


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# Conferences





# External Events



# Code Development

```
35 self.logger = logging.getLogger(__name__)
36
37 if path:
38     self.file = open(os.path.join(path, 'requests.log'),
39                     'a')
40     self.file.seek(0)
41     self.fingerprints.update(e.request)
42
43 @classmethod
44 def from_settings(cls, settings):
45     debug = settings.getbool('SUPERFILTER_DEBUG')
46     return cls(job_dir(settings), debug)
47
48 def request_seen(self, request):
49     fp = self.request_fingerprint(request)
50     if fp in self.fingerprints:
51         return True
52     self.fingerprints.add(fp)
53     if self.file:
54         self.file.write(fp + os.linesep)
55
56 def request_fingerprint(self, request):
57     return request_fingerprint(request)
```





IMPOSTER SYNDROME IS THE  
INABILITY TO ACCEPT ONES  
OWN ACCOMPLISHMENT AND  
THE CONSTANT FEAR OF BEING  
EXPOSED AS A FRAUD.

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# Internal Events



# Pragmatic Recommendations

A man in a dark suit and tie is seated at a wooden table. He is holding a white coffee cup with a saucer. The background is a textured wall. The text 'Pragmatic Recommendations' is overlaid in white on the image.

# Training





# How We Organize

- Open meeting with Guild Leaders
- Newsletter
- Retrospectives



# Community contributors heroes



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# What we have achieved

- A mainly C++ company that changed  
— ~~“Why in Python?”~~ “Why not in Python?”
- We have an active, ever-growing community
- Python Infrastructure team



# What's next?

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# Thank you!

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# Bloomberg

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