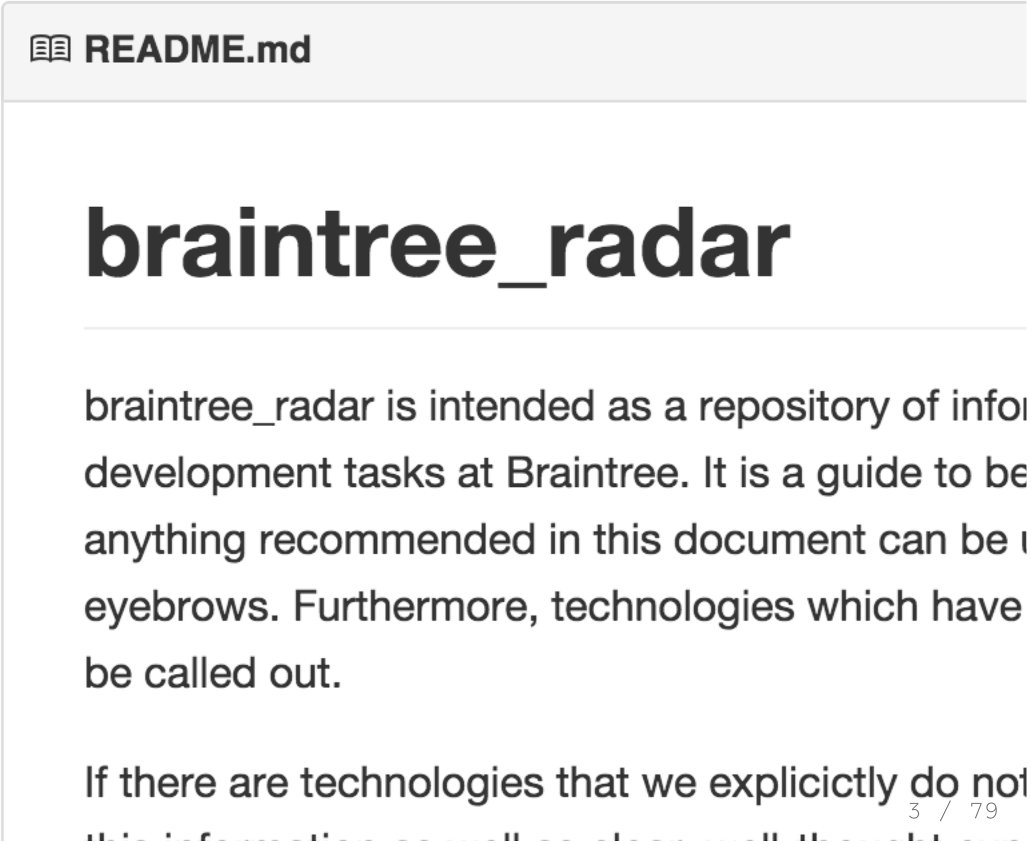
Python Not Recommended

Adam Forsyth

github.com/agfor

Python Not Recommended



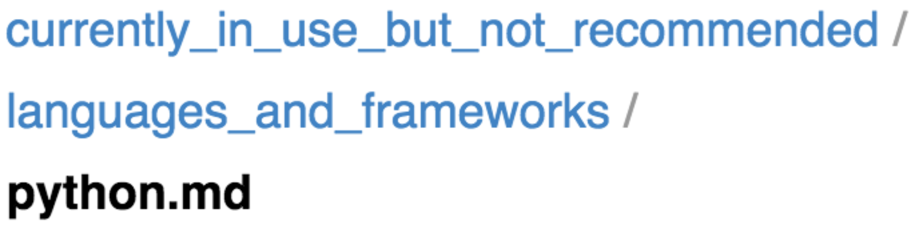
README.md

braintree_radar

braintree_radar is intended as a repository of infor
development tasks at Braintree. It is a guide to be
anything recommended in this document can be u
eyebrows. Furthermore, technologies which have
be called out.

If there are technologies that we explicictly do not

2014



currently_in_use_but_not_recommended / languages_and_frameworks / python.md

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Python at a Ruby Shop

Python at a Ruby Shop

- Lots of jokes because Python doesn't have "real lambdas"

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- Seen as inelegant compared to Ruby, Elixir, Clojure

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- Seen as inelegant compared to Ruby, Elixir, Clojure
- Dismissed as "dying language" because of perceived "failure" of Python 3
- Languages too similar: people apply Ruby idioms to Python

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JVM Ecosystem

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- Library for private API

JVM Ecosystem

- Library for private API
- Apache Kafka

JVM Ecosystem

- Library for private API
- Apache Kafka
- Apache Cassandra

?

?

JRuby

?

JRuby
Clojure

Smart Proxies

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- Pause incoming requests
- Custom rate limiting
- Nonstandard configurations: SSL, connection persistence
- Complex retry logic
- and more...

python

Tornado

Python @ Braintree, 2013

Python @ Braintree, 2013

- In use for several proxies

Python @ Braintree, 2013

- In use for several proxies
- Served us well for a couple of years

Python @ Braintree, 2013

- In use for several proxies
- Served us well for a couple of years
- Several internal advocates

Platform Failure

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- Too much work to keep up with changes in Tornado
- Using outdated Tornado version, so maintenance overhead is high
- High overhead to logging
- No SNI Support

Application Failure

Application Failure

- Smart proxies are too smart

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- Straightforward Python implementations not fast enough

Application Failure

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- Straightforward Python implementations not fast enough
- Not smart enough

Application Failure

- Smart proxies are too smart
- Straightforward Python implementations not fast enough
- Not smart enough
- Not built for horizontal scalability

Solutions

Solutions

- NginX + HAProxy, PGBouncer

Solutions

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- Node.js

Solutions

- NginX + HAProxy, PGBouncer
- NginX + HAProxy

Solutions

- NginX + HAProxy, PGBouncer
- NginX + HAProxy
- Clojure + Apache Kafka

Solutions

- NginX + HAProxy, PGBouncer
- NginX + HAProxy
- Tornado monkey patch

Python @ Braintree, Late 2014

Python @ Braintree, Late 2014

- All smart proxies on the way out

Python @ Braintree, Late 2014

- All smart proxies on the way out
- Not recommended for new projects

Python @ Braintree, Late 2014

- All smart proxies on the way out
- Not recommended for new projects
- Fewer internal advocates

You make me sad.

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Data Analysis

Data Analysis

- Replacing Excel

Data Analysis

- Replacing Excel
- Replacing SQL

Data Analysis

- Replacing Excel
- Replacing SQL
- Replacing R

Infrastructure Management

Infrastructure Management

- Resources - IP addresses, physical ports, server locations

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- Cloud Instance Management

Infrastructure Management

- Resources - IP addresses, physical ports, server locations
- Cloud Instance Management
- Switch Configuration

Community

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- Host Python meetups

Community

- Host Python meetups
- Hired more Pythonistas

Community

- Host Python meetups
- Hired more Pythonistas
- Give Python talks

Community

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- Hired more Pythonistas
- Give Python talks
- Our customers use Python

Community

- Host Python meetups
- Hired more Pythonistas
- Give Python talks
- Our customers use Python
- ...including Python 3

Python @ Braintree, 2015

Python @ Braintree, 2015

- Python 2 showing its age

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- As standard tools improve, losing a use case

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- Data Science important

Python @ Braintree, 2015

- Python 2 showing its age
- As standard tools improve, losing a use case
- Data Science important
- Community important

Questions?

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