

Python

```
14  
15 class Base(ContainerAware, metaclass=abc.ABCMeta):  
16     """The base class for all controllers.  
17  
18     Methods:  
19         self.__action__ = None  
20         return method(**kwargs) or {}  
21  
22     @abc.abstractmethod  
23         execute_method(self, **kwargs):  
24             if not self._method_error:  
25                 self._method_error = MethodError(  
26                     f"Method {method} not implemented")  
27  
28         def __call__(self, *args, **kwargs):  
29             if self._method_error:  
30                 raise self._method_error  
31             return self.execute_method(*args, **kwargs)
```

“Python is a programming language that lets you work quickly and integrate systems more effectively.”

```
>>> python_is()
Python is powerful and fast;
plays well with others;
runs everywhere;
is friendly and easy to learn;
is Open.
>>>
```

Zen of Python

Beautiful is better than ugly.
Explicit is better than implicit.
Simple is better than complex.
Complex is better than complicated.
Flat is better than nested.
Sparse is better than dense.
Readability counts.
Special cases aren't special enough to break the rules.
Although practicality beats purity.
Errors should never pass silently.
Unless explicitly silenced.
In the face of ambiguity, refuse the temptation to guess.
There should be one—and preferably only one—obvious way to do it.
Although that way may not be obvious at first unless you're Dutch.
Now is better than never.
Although never is often better than right now.
If the implementation is hard to explain, it's a bad idea.
If the implementation is easy to explain, it may be a good idea.
Namespaces are one honking great idea—let's do more of those!

Guido van Rossum

Benevolent Dictator For Life (BDFL)

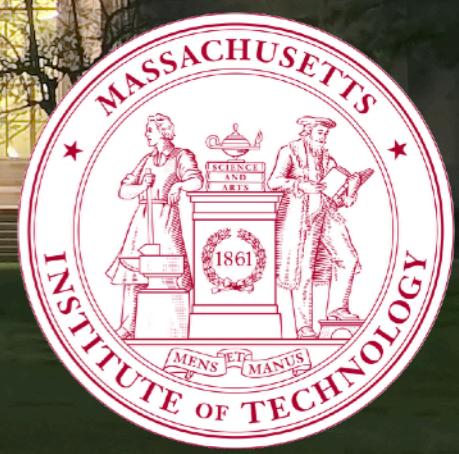
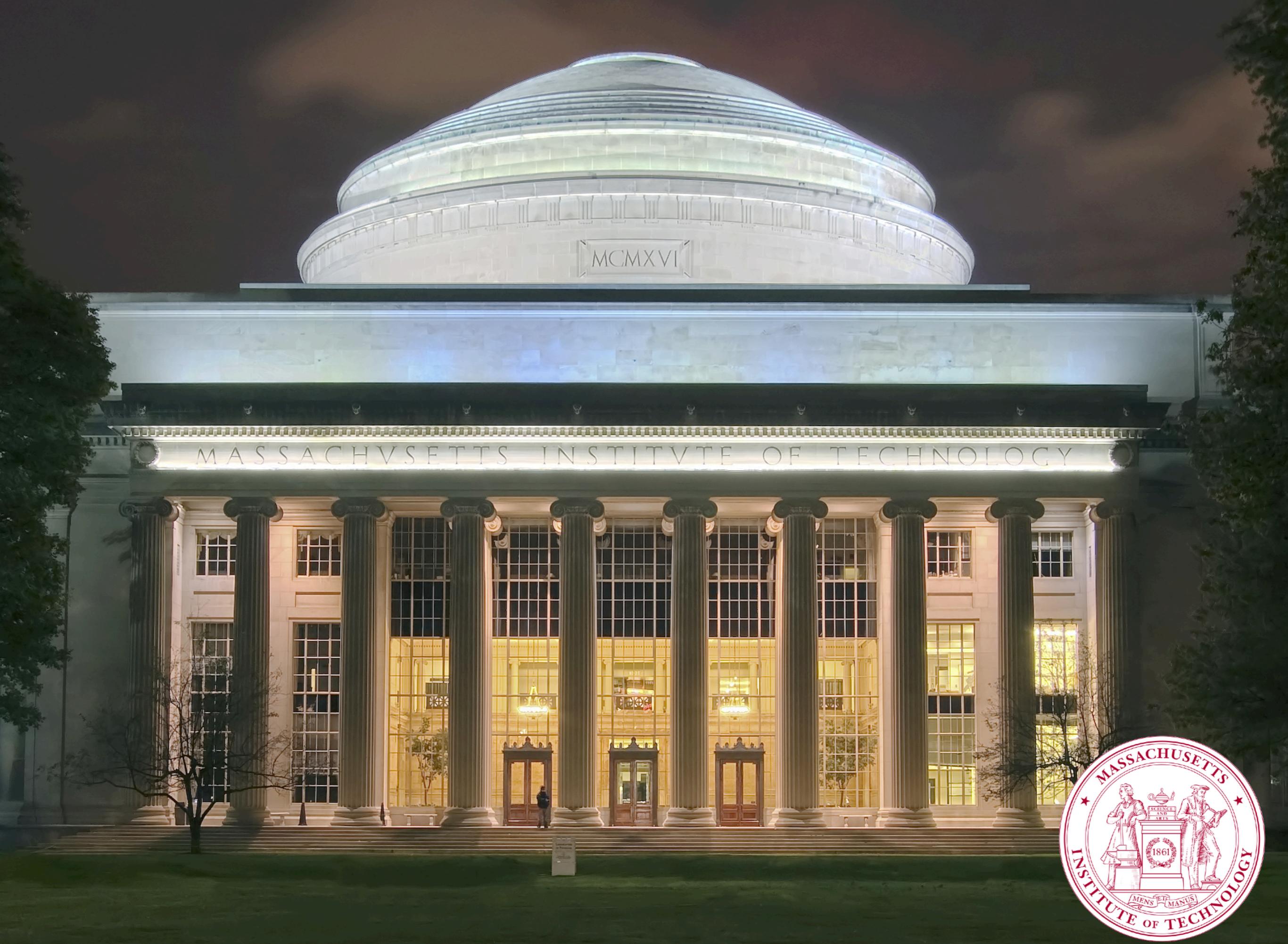
Since #1996



Who **uses** it_

A large, colorful Google logo is displayed on the side of a modern, multi-story building with a glass facade. The logo consists of the word "Google" in a bold, sans-serif font. The letters are colored in a gradient: blue for 'G', yellow for 'o', red for 'o', green for 'g', and red for 'e'. The building's windows reflect the surrounding environment, including trees and other buildings. The sky is clear and blue.

Google







NASA









“Python has been an important part of Google since the beginning, and remains so as the system grows and evolves. Today dozens of Google engineers use **Python**, and we're looking for more people with skills in this language.”

- - said Peter Norvig, director of search quality at [Google, Inc.](#).

Technical **issues**_

What is **Python**?

Python is an interpreted, interactive, object-oriented programming language. It incorporates modules, exceptions, dynamic typing, very high level dynamic data types, and classes.

Python combines remarkable power with very clear syntax. It has interfaces to many system calls and libraries, as well as to various window systems, and is extensible in C or C++. It is also usable as an extension language for applications that need a programmable interface.

Finally, **Python** is portable: it runs on many Unix variants, on the Mac, and on Windows 2000 and later.

What is **Python** good for?

Python is a high-level general-purpose programming language that can be applied to many different classes of problems.

The language comes with a large standard library that covers areas such as string processing (regular expressions, Unicode, calculating differences between files), Internet protocols (HTTP, FTP, SMTP, XML-RPC, POP, IMAP, CGI programming), software engineering (unit testing, logging, profiling, parsing **Python** code), and operating system interfaces (system calls, filesystems, TCP/IP sockets).

Look at the table of contents for **The Python Standard Library** to get an idea of what's available. A wide variety of third-party extensions are also available.

Where **we want** to **apply it** ?

Big Data

ETL

Data Mining

Clustering

Text Analytics

Business Intelligence

Real Time

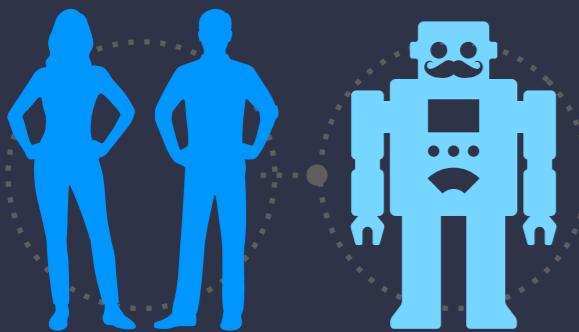
AI

Machine Learning

Scientific Computing, Web Site, Desktop & Mobile Application and much more...



When **our business** meet **Python...**



- Humans / Machines Generated Data

Collecting

- Crawler / Scraping

Storage

- SQL / NOSQL / Big Table

Computing

- Batch / Real Time

Analisy

- Data Mining / Machine Learning / Statistics

Visualization

- Interactive

Infrastructure

Keep **moving...**

<http://www.informationisbeautiful.net/>

<http://habidatum.com/projects/>

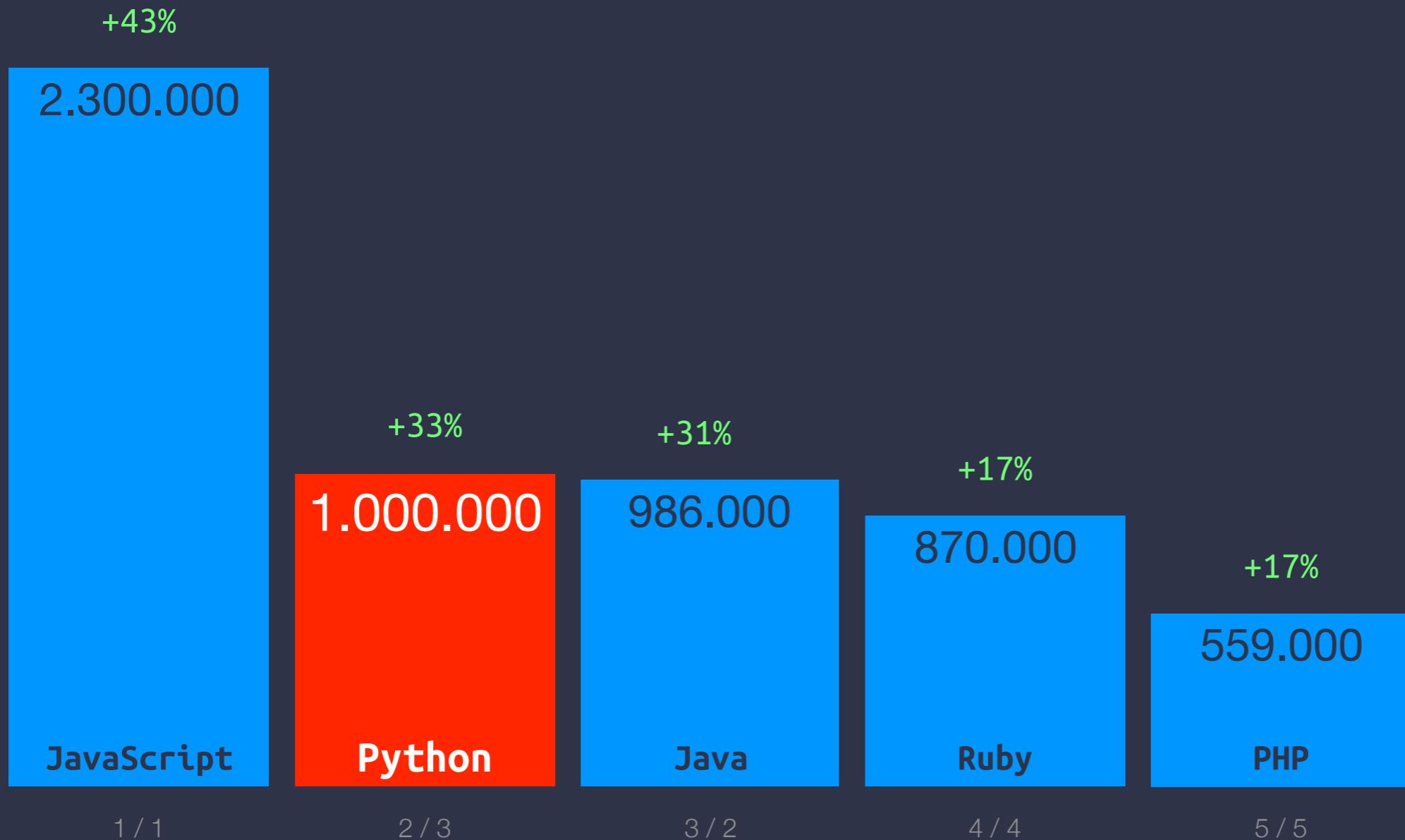
A little bit of **research_**

Top **5** of Programming Languages

Which programming language will be the most popular in 2017?

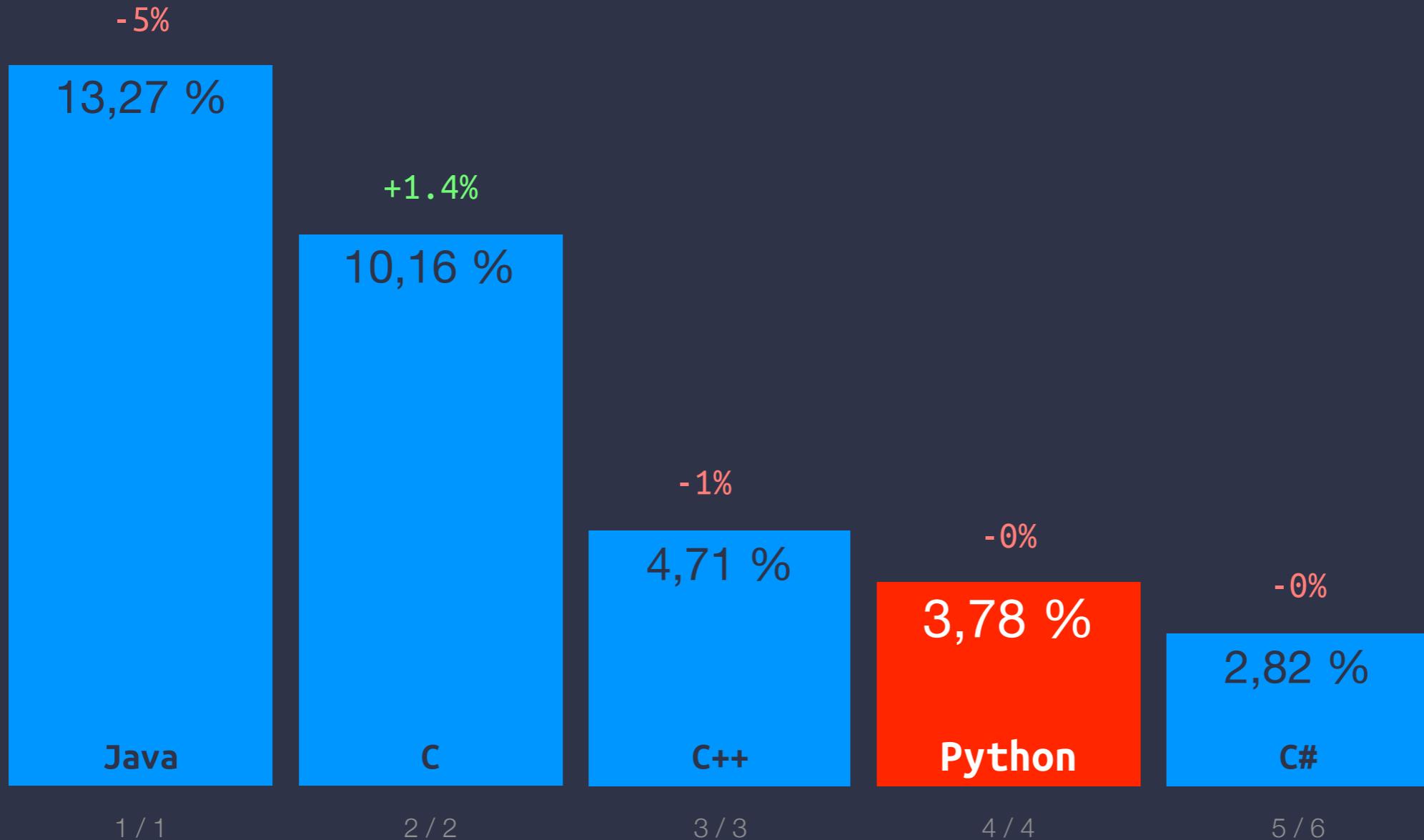
GitHub Ranking 2017

Number of pull requests / As compared to 2016



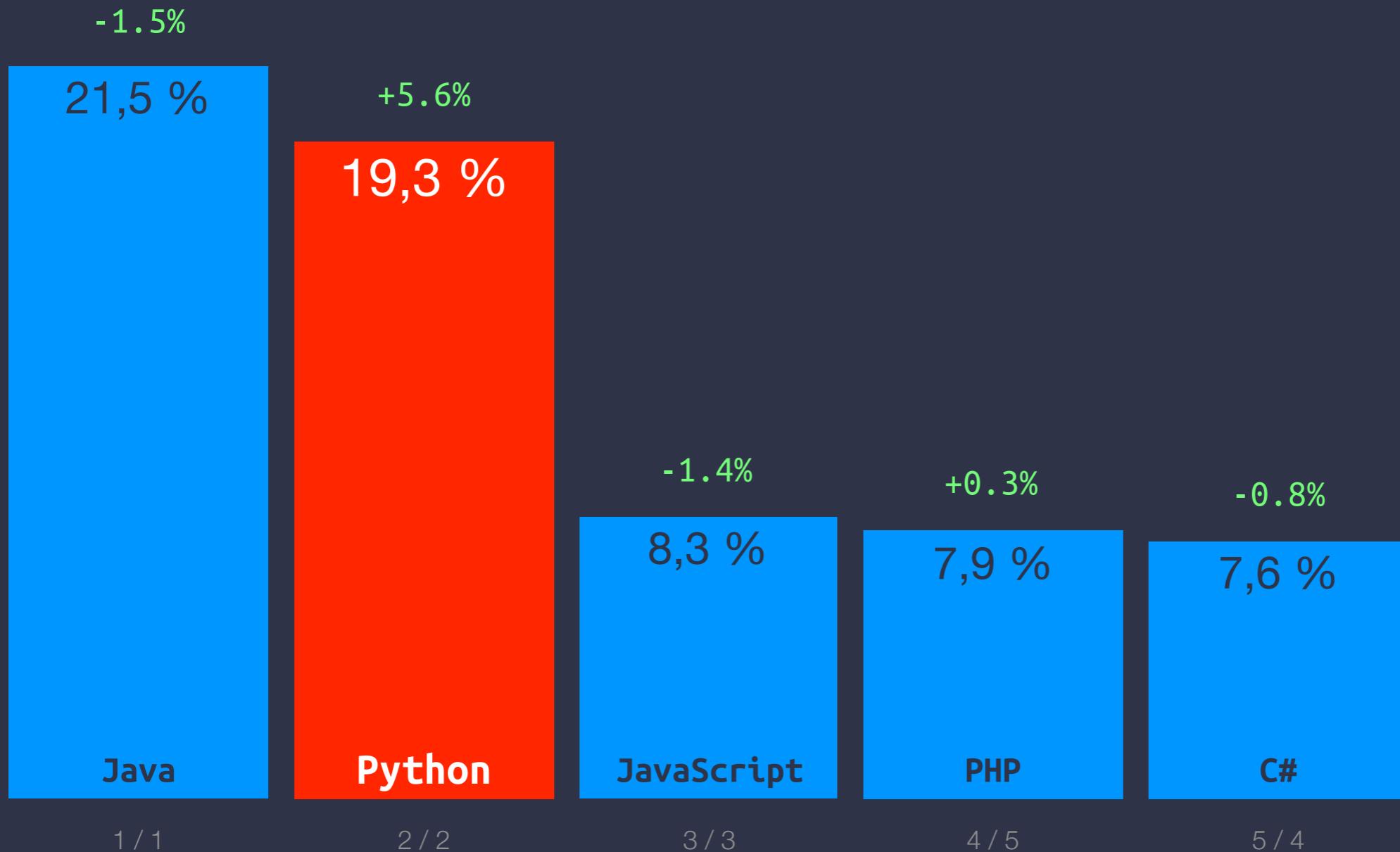
Tiobe Ranking 2017

As compared to searches from 2016



PYPL Ranking 2017

As compared to how often language tutorials are searched from 2016



Keep **researching**...

<https://spectrum.ieee.org/computing/software/the-2017-top-programming-languages>

<https://www.fullstackpython.com/why-use-python.html>

<http://www.bestprogramminglanguagefor.me/why-learn-python>

<https://redmonk.com/sogrady/2017/03/17/language-rankings-1-17/>

<https://www.forbes.com/sites/jeffkauflin/2017/12/08/the-top-10-tech-skills-employers-are-hiring-for/#1e163f5330a7>

Women's role_



“**Python** is for girls.”

<http://www.pyladies.com/>

Jessica McKellar

Director of the Python Software Foundation

Since #2012



Thanks for your **time** !