Python 101

Importance of having a good programming skill.

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About the audience:

Knowledge of programming languages.

Knowledge of different computational domains.

How much you know about Python ? or any modern programming language.

Intro

The goal of this seminar is to motivate freshmen towards Scientific and Analytical computation in general and using Python as a tool towards that goal.

Intro

Python is an experiment in how much freedom programmers need. Too much freedom and nobody can read another's code; too little and expressive-ness is endangered.

Guido van Rossum

Resources

All code examples along with slides are available @

https://github.com/zain101/arkpTalk

Top programming language

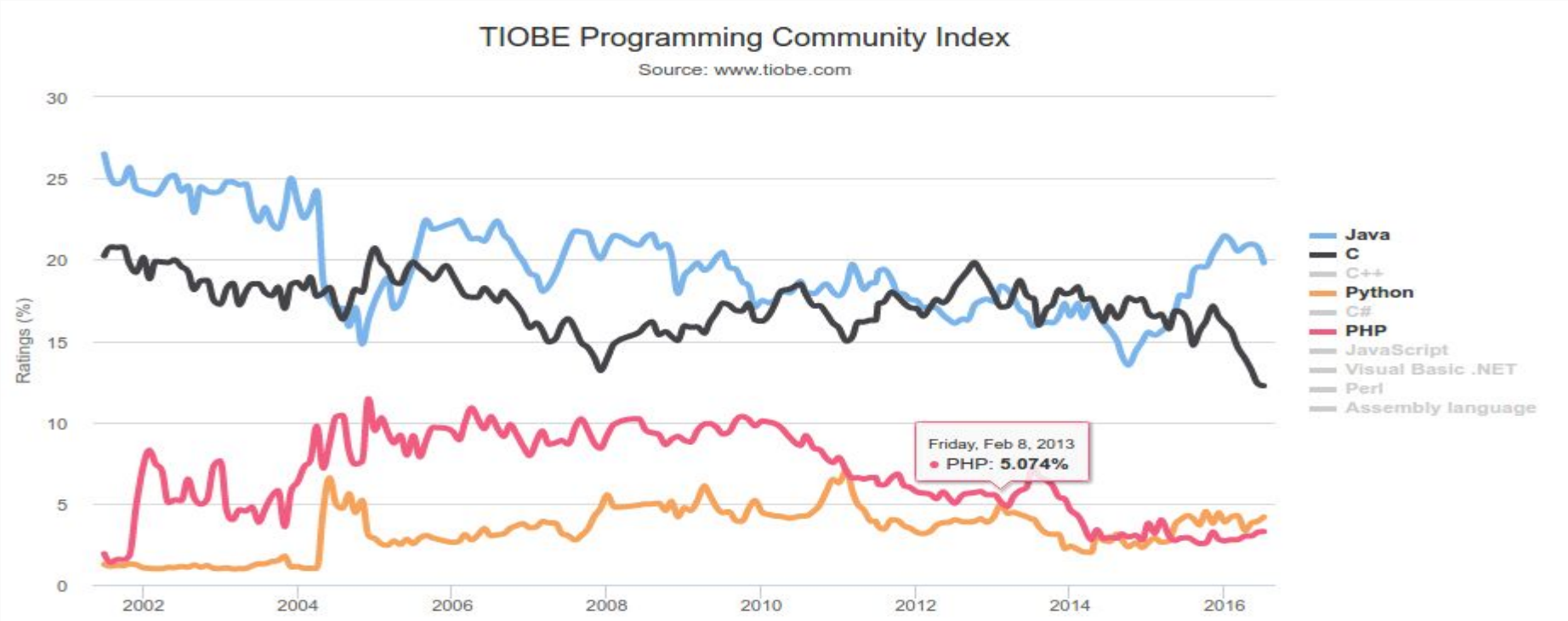
Python is among the top 5 programming language used in the industry today.

...Let's have some stats

Jul 2016	Jul 2015	Change	Programming Language	Ratings	Change
1	1		Java	19.804%	+2.08%
2	2		C	12.238%	-3.91%
3	3		C++	6.311%	-2.33%
4	5	▲	Python	4.166%	-0.09%
5	4	▼	C#	3.920%	-1.73%
6	7	▲	PHP	3.272%	+0.38%
7	9	▲	JavaScript	2.643%	+0.45%
8	8		Visual Basic .NET	2.517%	+0.09%

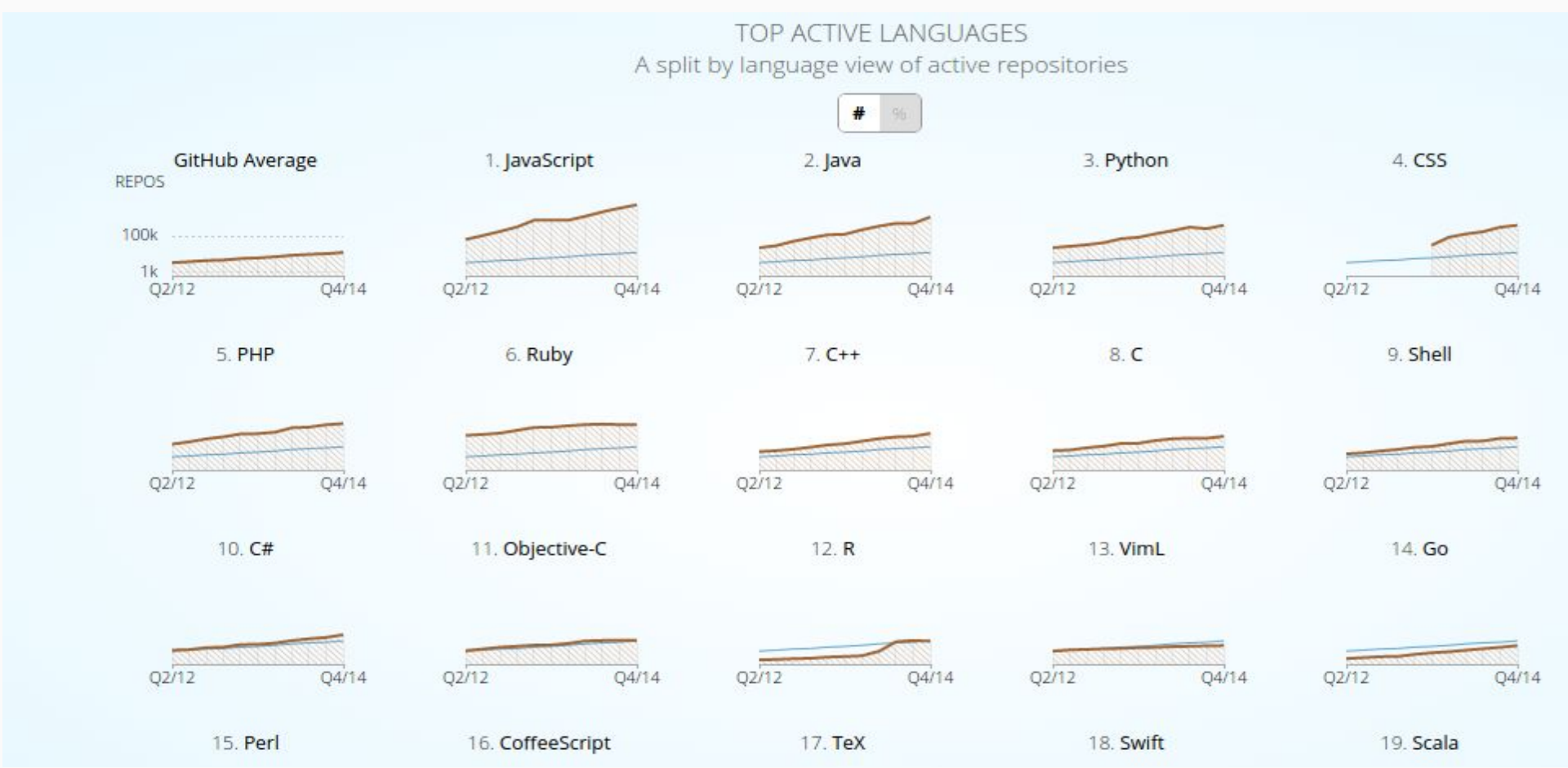
Source: http://www.tiobe.com/tiobe_index

Date: july 2016



Source: http://www.tiobe.com/tiobe_index

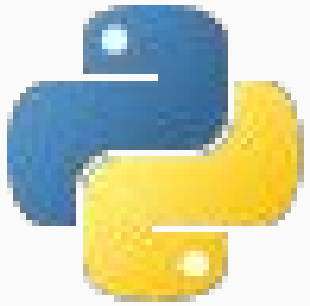
Date: july 2016



Source: http://githut.info/, Date: julc 2016

Why Python is so popular ?

Top attractive features:



High Readability.

Easy learning curve.

Applicable in lots of domains.

Highly Scalable.

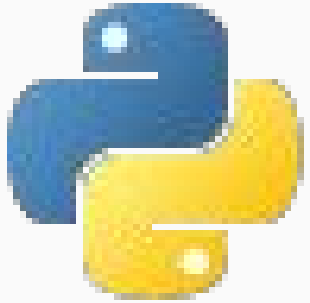
Platform independent.

High performance.

Object oriented.

Why Python is so popular ?

Domains



- Desktop
- Web
- Scripting
- Analysis
- Scientific
- Visualization
- Database
- Networking

Let’s get our hand dirty

“Hello world”program

Indentation

Data types

List

Tuples

Dictionary

Control Structures

File handling

Let’s get our hand dirty ...contd

We will do this in terminal and jupyter-notebook

https://github.com/zain101/Python_Workshop

Jobs in Python.

Let’s have some stats from

LinkedIn

Indeed

Monster

angel.co

hiree.com

Search

Advanced >

All
Jobs
More...

Keywords
python

Company

Title

Location
Anywhere

Search Reset

Location
- All
- United States (27426)
- San Francisco Bay Ar... (6240)
- India (4854)
- United Kingdom (2912)
- Mumbai Area, India (404)

404 results for **python**

Sort by **Relevance**

Mumbai Area, India × Reset

Full Stack Engineer
Haptik Inc
Mumbai, Maharashtra, India • Jul 15, 2016
Similar
View

DevOps Engineer
Haptik Inc
Mumbai, Maharashtra, India • Jul 15, 2016
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Software Engineer
Spiral Content Solutions
Mumbai Area, India • Jun 29, 2016
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Mutal Fund Data Analyst
Bloomberg LP
Mumbai, IN • Jul 10, 2016
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Bista Solutions - Data Analyst - R/**Python** (0-1 yrs) Mumbai
Bista Solutions
Mumbai, IN • Jun 18, 2016 • From www.hirist.com
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Software Engineer (Job id:504764)
SP Staffing Services (P) Ltd
Mumbai, IN • Jul 16, 2016 • From www.headhonchos.com
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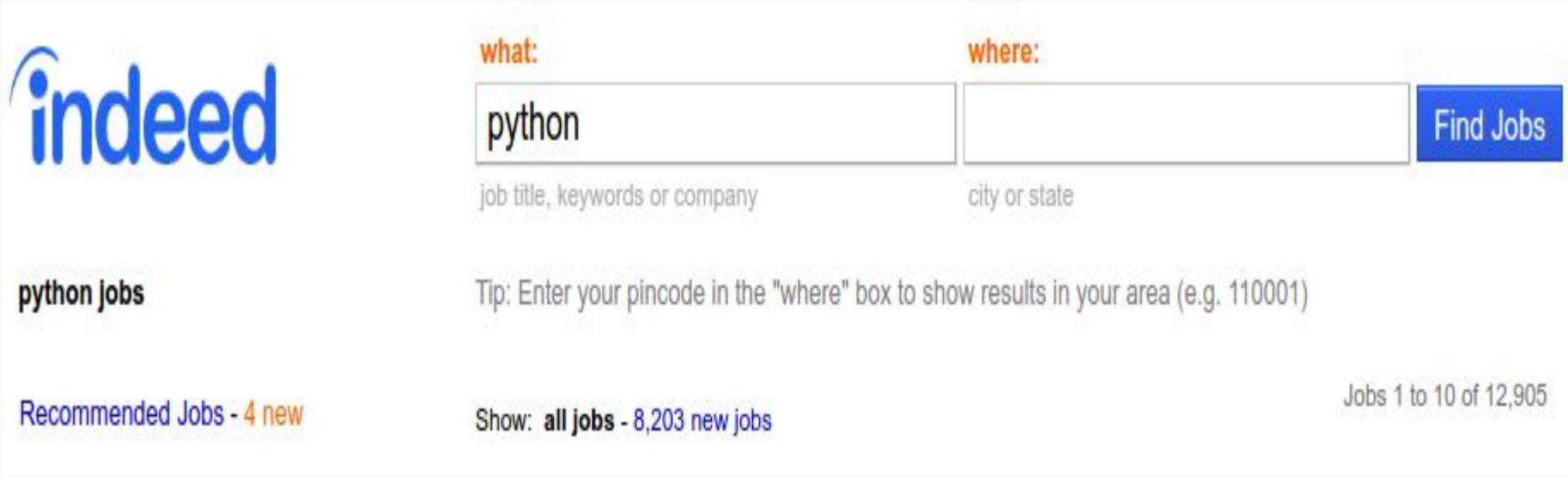


Site: indeed.co.in

Top Ten In-demand Technologies

The following technologies feature most strongly in job vacancy advertisements:

1. **Java** — featured in 18% of adverts with an average salary of $100,000 USD
2. **JavaScript** — 17%, $90,000
3. **C#** — 16%, $85,000
4. **C** — 9%, $90,000
5. **C++** — 9%, $95,000
6. **PHP** — 7%, $75,000
7. **Python** — 5.5%, $100,000
8. **R** — 3%, $95,000
9. **Scheme** — 3%, $65,000
10. **Perl** — 3%, $100,000

Top Ten Technology Salaries

The following technologies all pay more than $100,000, with Erlang developers earning an average of $125,000 USD per year:

1. Erlang
2. Clojure
3. Haskell
4. Lua
5. Lisp
6. Groovy
7. Scala
8. F#
9. Ruby
10. Python

Interestingly, only Python appears in both lists. *Does that make it the best option?*

Python usage.

Dropbox

Youtube

Google

Morgan Stanley

J P Morgan

Yahoo

NASA

CERN

Other modern languages like Python

Ruby

Perl

Scala

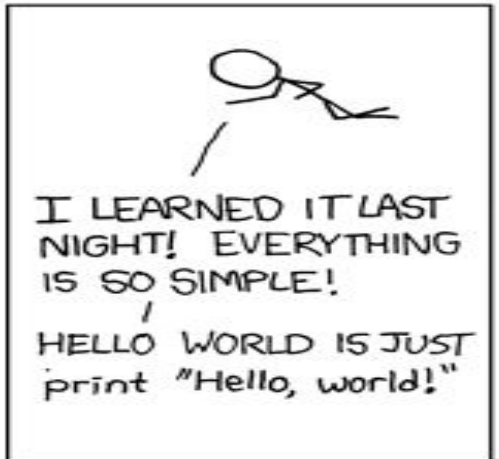
Go

R

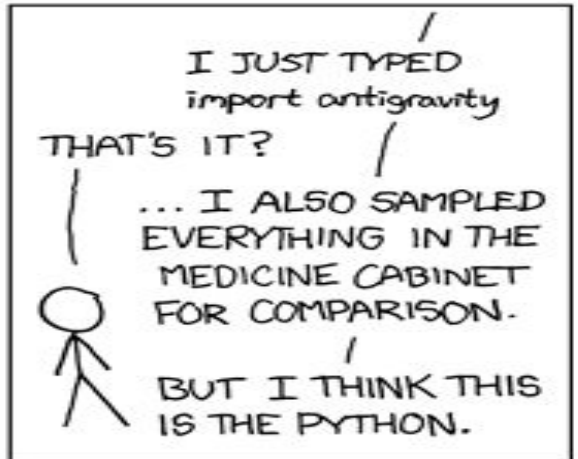
Swift

Rust

PYTHON!
YOU'RE FLYING! HOW?


I LEARNED IT LAST NIGHT! EVERYTHING IS SO SIMPLE!
HELLO WORLD IS JUST print "Hello, world!"

I DUNNO... DYNAMIC TYPING? WHITESPACE?
COME JOIN US! PROGRAMMING IS FUN AGAIN! IT'S A WHOLE NEW WORLD UP HERE!
BUT HOW ARE YOU FLYING?


I JUST TYPED import antigravity
THAT'S IT?
... I ALSO SAMPLED EVERYTHING IN THE MEDICINE CABINET FOR COMPARISON.
BUT I THINK THIS IS THE PYTHON.

Final point

Choose a language that you are comfortable with.

“ The joy of coding Python should be in seeing short, concise, readable classes that express a lot of action in a small amount of clear code -- not in reams of trivial code that bores the reader to death.”

- Guido van Rossum

About my journey into the world of python and how it continues.

Questions… ?

Thanks!

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