Python and its Applications

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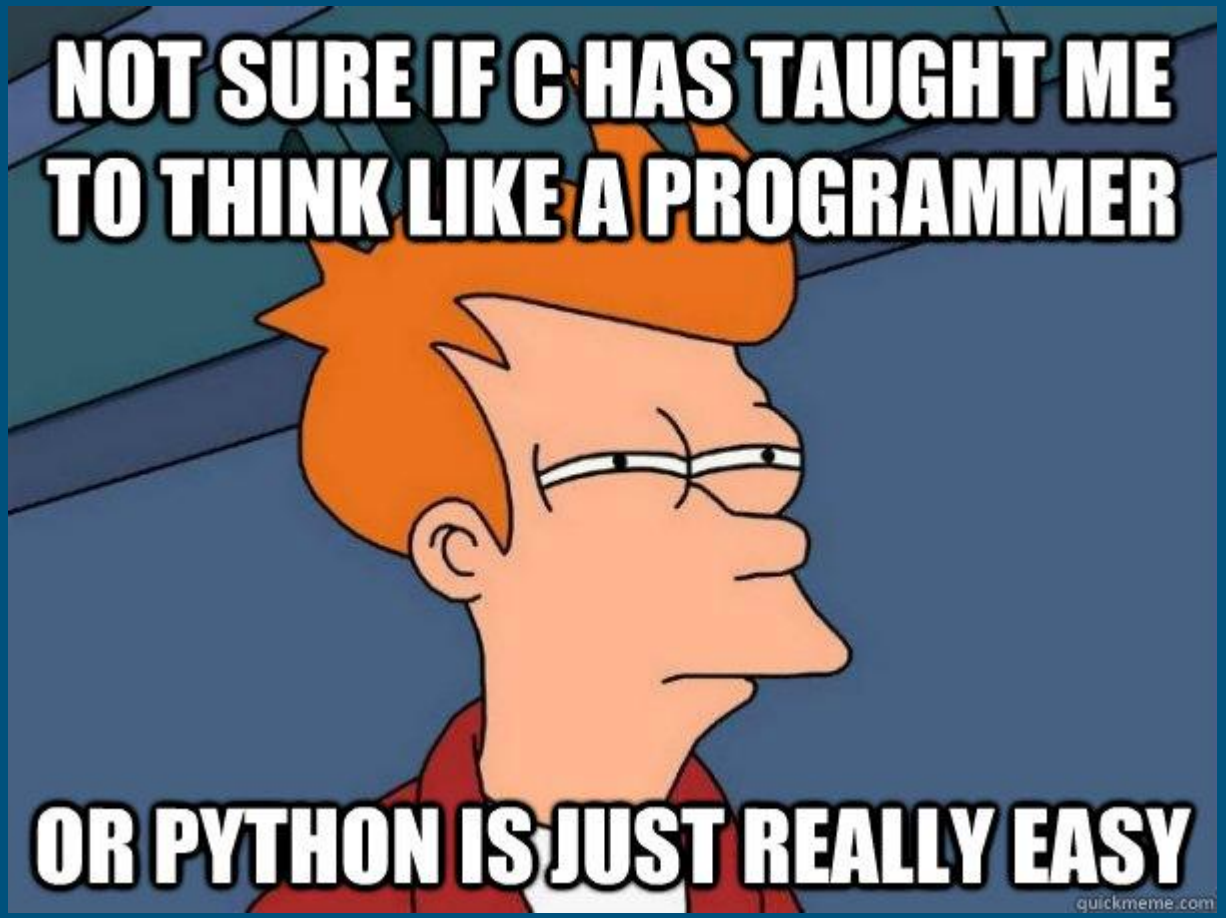
What is Python ?

Scripting vs General Purpose Language

Python is simply an Executable pseudocode


NOT SURE IF C HAS TAUGHT ME
TO THINK LIKE A PROGRAMMER
OR PYTHON IS JUST REALLY EASY
quickmeme.com

Who is using Python ?


You
Tube


Q


NASA


twilio

Why Python ?

Spotify

Around 80% of these services are written in Python… **Speed** is a big focus for Spotify. Python fits well into this mindset, as it gets us big wins in **speed of development**

Why Python ?

Facebook

Python has long been the language most commonly used by **production engineers** at Facebook and is the **third most** popular language at Facebook behind PHP and C++

Easy

Fast

Adapted

Batteries included

Good Community

Where can I use Python?

Web Development

1. Django (Most Popular framework)
2. Flask (light and easy)
3. Twisted (event-driven)
4. Pyramid

A web framework for perfectionists with deadline

www.djangoproject.org

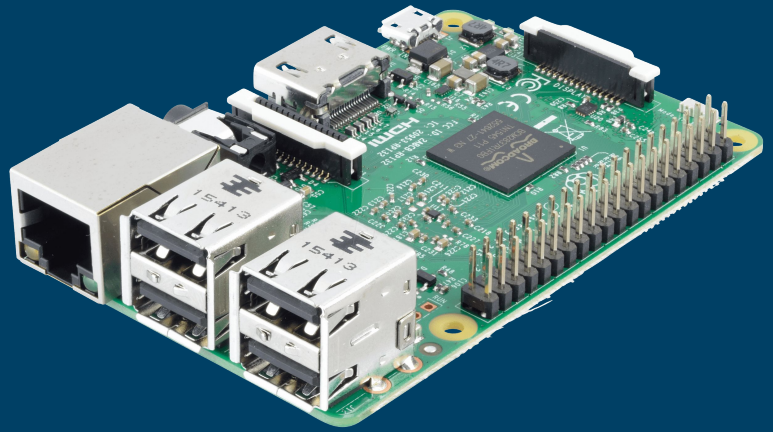
Scientific Computing

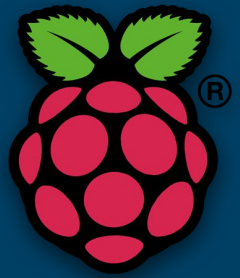
- A great alternative to matlab / octave
- Libraries - Numpy and Scipy
- Linear Algebra, matrices, Computer vision etc.

Data Science

- Most preferred language for Data science
- Machine learning
- Robotics
- Financial Analysis
- Big Data Analytics
- Libraries: Pandas, Scikit-learn, Pytorch, PySpark

Hardware and IoT





Where it lags?

- Mobile app development (Native - JS / Swift, hybrid - JS)
- Slower execution time (Java / C)
- Front-end development (JS)

Getting started with Python

Basics of Python

1. Coursera - Python for everybody (5 Courses)
   https://www.coursera.org/specializations/python
2. Udacity CS 101
   https://www.udacity.com/course/intro-to-computer-science--cs101
3. Books
   a. Learn Python the hard way
   b. Dive into Python

Web Development

1. Django official tutorial - https://docs.djangoproject.com/en/1.11/intro/tutorial01/
2. Djangobook - http://djangobook.com/
3. Full stack Python - https://www.fullstackpython.com/django.html

Data science

1. Udacity - https://www.udacity.com/learn/datascience
2. Coursera ML specialization - https://www.coursera.org/specializations/machine-learning
3. Kaggle tutorials

Programming Challenges

1. Project Euler - https://projecteuler.net/
2. Classical Programming challenges - https://github.com/karan/Projects
3. Python challenge - http://www.pythonchallenge.com

Awesome Lists !

1. Awesome Python - https://github.com/vinta/awesome-python
2. Awesome Django - https://github.com/rosarior/awesome-django
3. Awesome Data science - https://github.com/bulutyazilim/awesome-datascience

Richard Branson

“You don't learn to walk by following rules. You learn by doing, and by falling over.”

Questions?

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