Why Python for Data Science

DONI RUBIAGATRA
DATA SCIENCE INDONESIA JATIM

About Me

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- **Doni Rubiagatra,** @rubiagatra
- B.Sc in **Mathematics** at **ITS Surabaya**
- Co-Founder **surabaya.py,** Internal **DSI Jatim,** Co-Organizer Golang Surabaya
- Back End Engineer **kumparan**
- **Pycon Korea, Malaysia, Indonesia, APAC**

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Why Python is the Best Language for Data Science?

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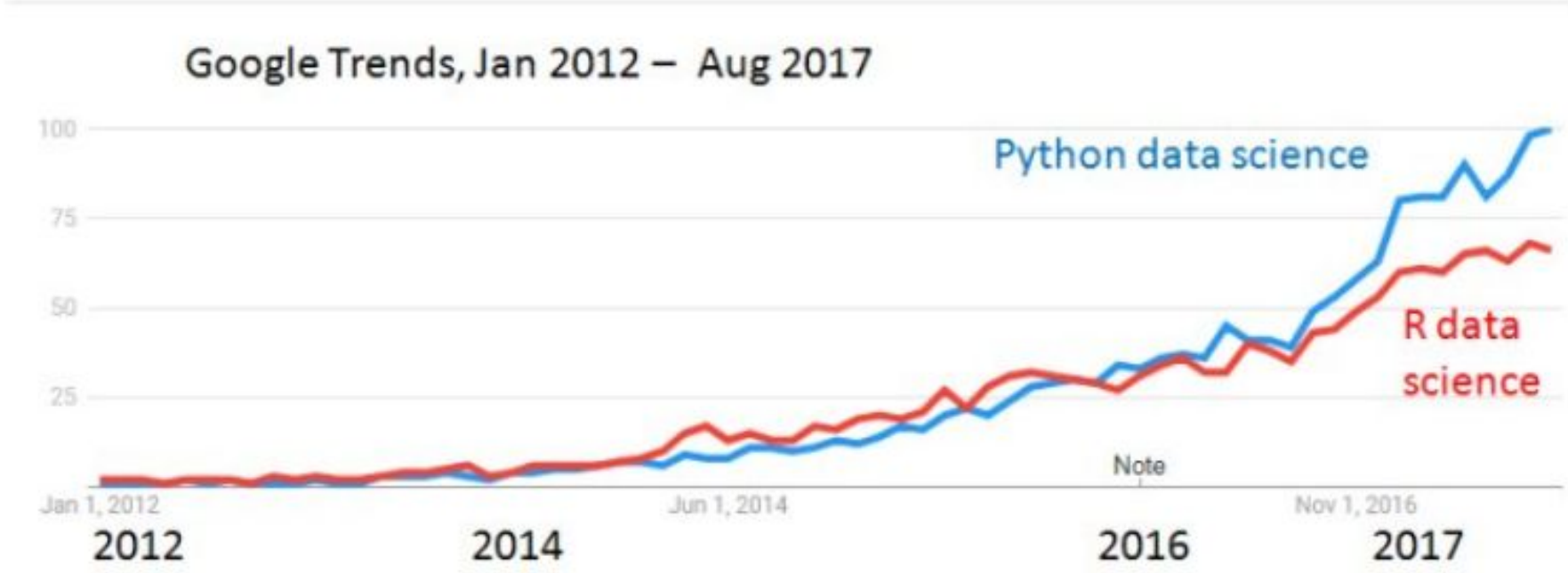

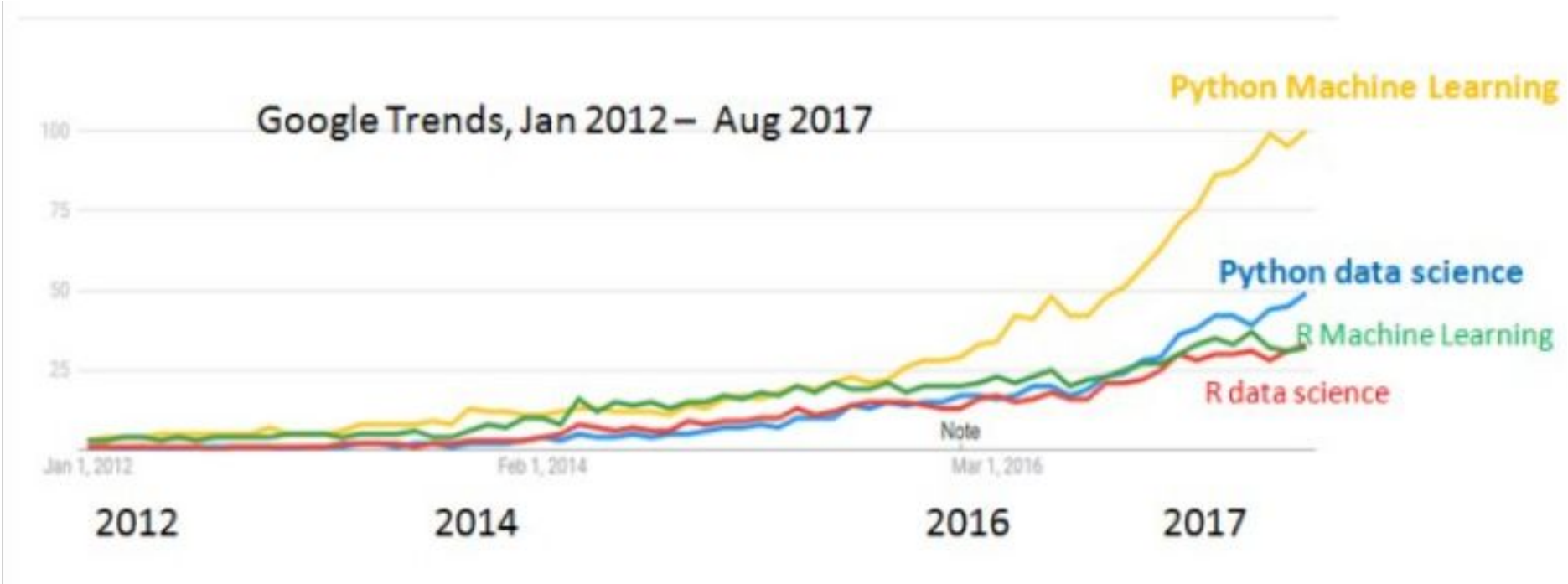
Google Trends, Jan 2012 – Aug 2017
Python Machine Learning
Python data science
R Machine Learning
R data science
100
75
50
25
Note
Jan 1, 2012
Feb 1, 2014
Mar 1, 2016
2012
2014
2016
2017

PRODUCT

Data Scientist

Full Time

APPLY

Responsibilities

- Analyzing complex, incomplete, and large data, from internal and external databases
- Providing insights based on data, includes data visualization, inference statistics, predictive modeling, machine learning, and presentation
- Extracting data from RDBMS, Non RDBMS, and external data to make dashboards for other divisions
- Improving and monitoring product features based on performance data

Requirements

- Bachelor or Master degree in Mathematics, Statistics, Computer Science, or related fields
- Experienced using RDBMS and Non RDBMS (MySQL, PostgreSQL, MongoDB)
- Experienced using data analysis tools, i.e: Excel (Spreadsheet), R, Python, etc
- Having passion in databases, data analysis, statistics, modeling, and machine learning
- Minimum 2 years experience in the same field are preferred

← Back to Technology

Data Scientist

The focus of our data science team is to work on highly scalable data-driven products that have massive impact on the business. If you are passionate in finding patterns in big data and

Requirements

- Minimum Bachelor's degree in quantitative field, e.g. Math, Physics, and Computer Science
- Minimum 1 year of working experience as Data Analyst, Data Scientist, Data Engineer, or similar position
- Have passion in big data, data mining, and machine learning
- Proficient in programming language, i.e : Python, R, Scala, etc
- Have natural curiosity and desire to learn
- Proficient in several modeling techniques including but not limited to: Clustering, SVM, Linear/Non-Linear Modeling, Random Forests, ANN, etc.
- High spirit in model testing and validation to create accurate and consistent models
- Comfortable in mining unstructured dataset and processing it to become usable dataset
- Familiar with relational/NoSQL database, SQL, and ETL process
- Good communication skill for both oral and written
- Have knowledge in big data tools such as Hadoop and Spark is a plus
- Participation in Kaggle is a plus

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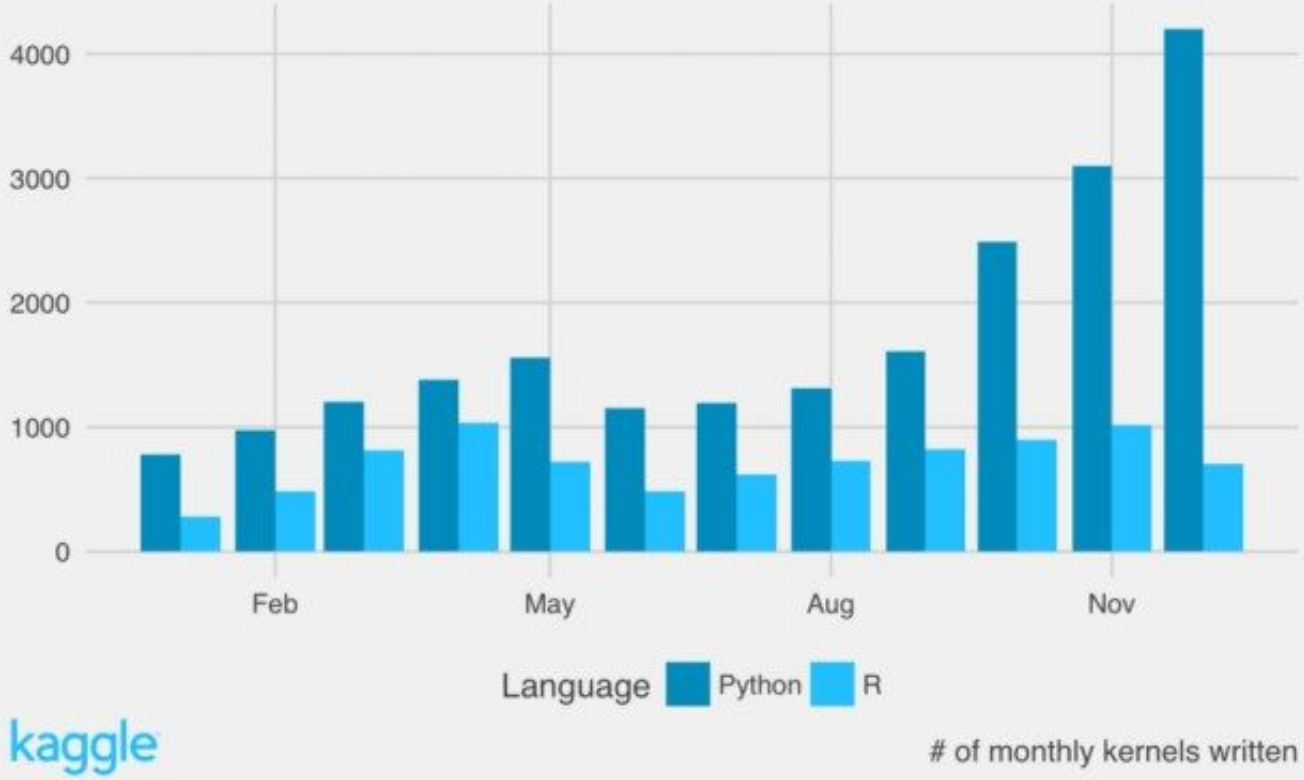

Featured Dataset

509

Kaggle ML and Data Science Survey, 2017

A big picture view of the state of data science and machine learning.

Kaggle • last updated 2 months ago

Overview Data Kernels Discussion Activity Download (4 MB) New Kernel

Tags data analysis artificial intelligence sociology employment medium featured

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Kernels

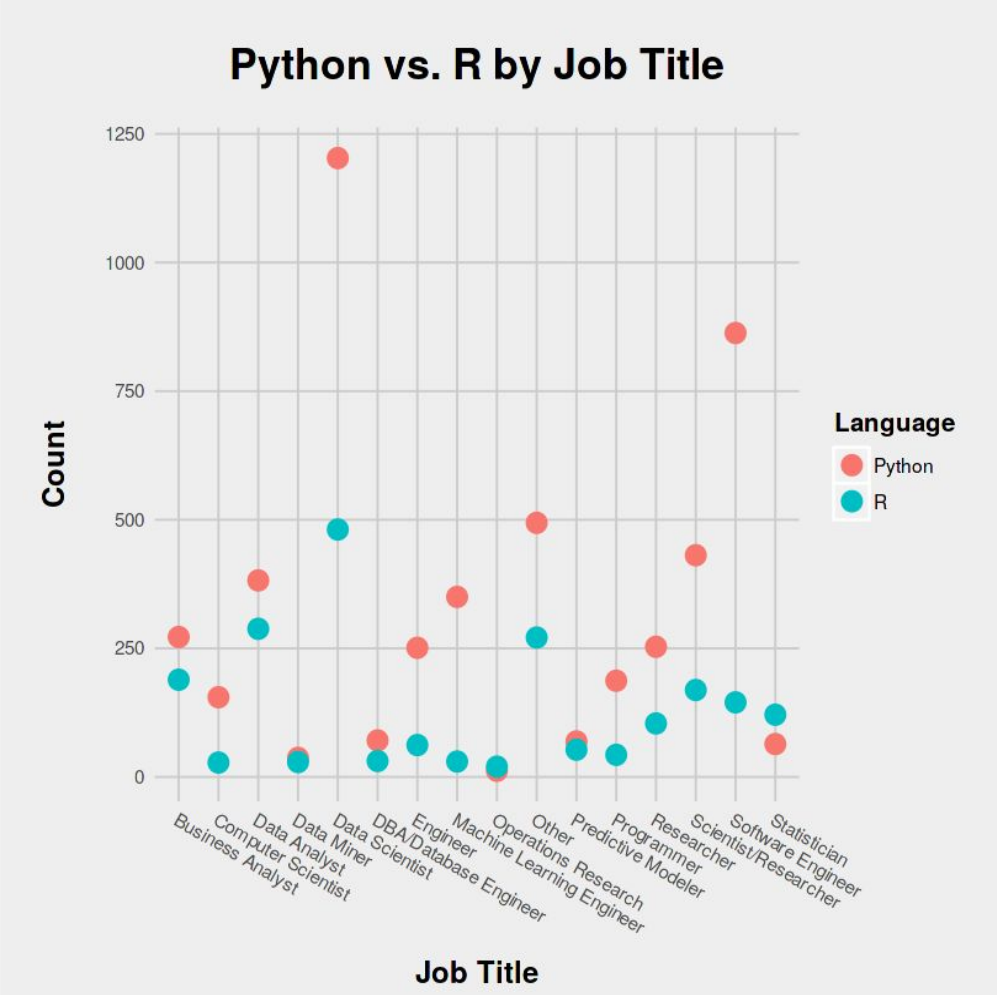
Novice to Grandmaster — 278 votes
run 3 days ago

What do Kagglers say about ... — 263 votes
run 4 days ago

Discussion

For goodness' sake ... — 0 replies
8 days ago

In schema.csv, what's the dif... — 1 reply
15 days ago



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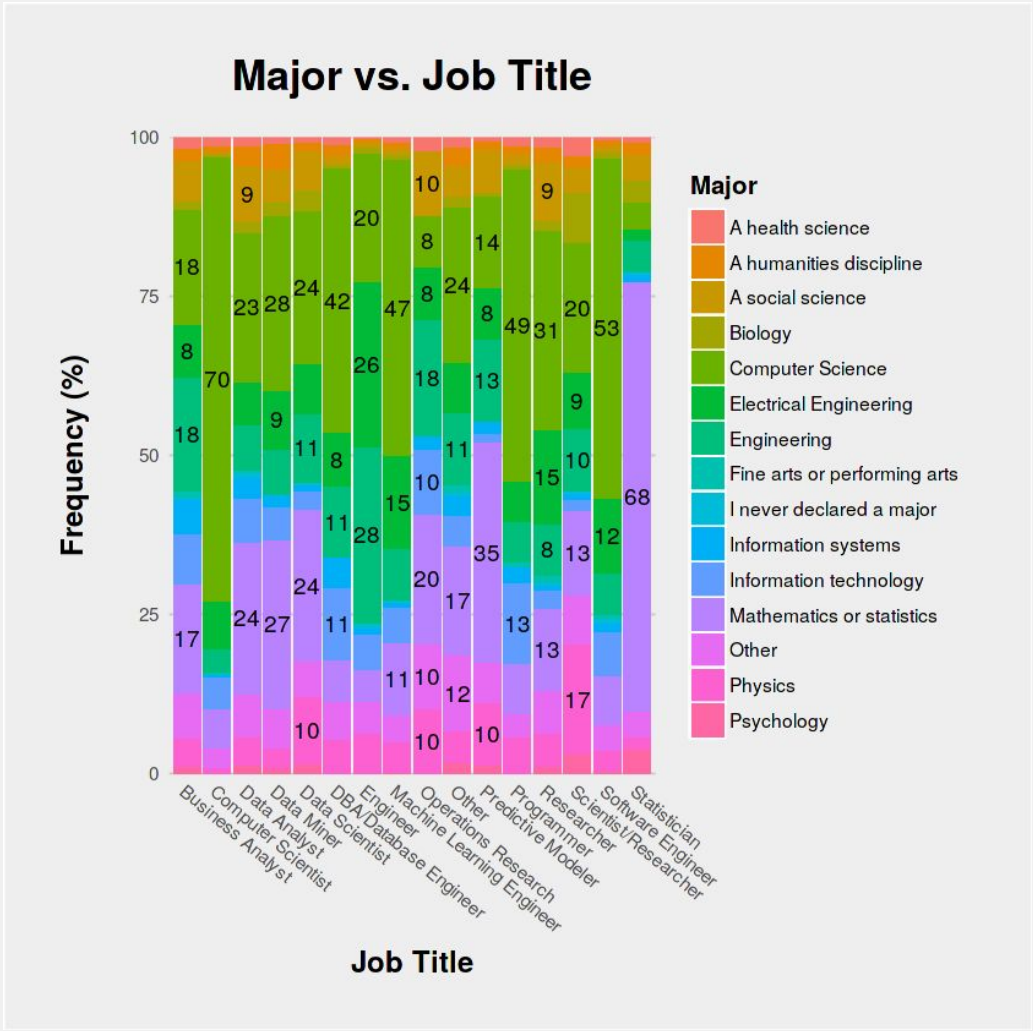
Major vs. Job Title
Frequency (%)
100
75
50
25
0
Business Analyst
Computer Scientist
Data Analyst
Data Miner
Data Scientist
DBA/Database Engineer
Machine Learning Engineer
Operations Research
Other
Predictive Modeler
Programmer
Researcher
Scientist/Researcher
Software Engineer
Statistician
Job Title
Major
A health science
A humanities discipline
A social science
Biology
Computer Science
Electrical Engineering
Engineering
Fine arts or performing arts
I never declared a major
Information systems
Information technology
Mathematics or statistics
Other
Physics
Psychology

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	All	Data Scientist	Software Engineer	Researcher	Machine Learning Engineer
1	Python	Python	Python	Python	Python
2	SQL	SQL	SQL	R	Jupyter
3	R	R	Jupyter	Jupyter	TensorFlow
4	Jupyter	Jupyter	Unix	MATLAB	Unix
5	Unix	Unix	Java	TensorFlow	SQL
6	TensorFlow	AWS	AWS	SQL	R
7	AWS	Spark	NoSQL	Unix	AWS
8	Tableau	TensorFlow	R	C	C
9	Java	Hadoop	TensorFlow	Java	Java
10	NoSQL	Tableau	C	Excel	MATLAB

Python is Dominant in DS

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- More **general-purpose** and **practical** than R
- More **productive** and **flexible** than Java and C++
- Better **ecosystem** than Ruby and JavaScript

- Python is a good all-rounder, but it's only #1 in **data science, machine learning** and **AI**

Python's Most Popular

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What programming language do you mostly use for AI?

78%

thestateofai.com

Most Popular Technologies per Dev Type: Math & Data

55.5%

insight.stackoverflow.com

Let’s Hands On!