제1장 왜 R인가?

2020-01-01 오후 1:00에 김대호이(가) 수정

1. World's Most Valuable Brands (2019)

Brand Finance®
Brandirectory

2019	2018	Logo	Name	Country	2019	2018	2019	2018
1	1	amazon	Amazon	🇺🇸	$187,905M	$150,811M	AAA-	AAA-
2	2	🍎	Apple	🇺🇸	$153,634M	$146,311M	AAA	AAA+
3	3	Google	Google	🇺🇸	$142,755M	$120,911M	AAA	AAA+
4	6	Microsoft	Microsoft	🇺🇸	$119,595M	$81,163M	AAA	AAA+
5	4	SAMSUNG	Samsung Group	🇰🇷	$91,282M	$92,289M	AAA-	AAA+
6	5	AT&T	AT&T	🇺🇸	$87,005M	$82,422M	AA+	AAA-
7	7	f	Facebook	🇺🇸	$83,202M	$76,526M	AAA-	AAA+
8	10	ICBC	ICBC	🇨🇳	$79,823M	$59,189M	AAA+	AAA+
9	8	verizon	Verizon	🇺🇸	$71,154M	$62,826M	AAA	AAA-
10	11	中国建设银行	China Construction Bank	🇨🇳	$69,742M	$56,789M	AAA	AAA
11	9	Walmart	Walmart	🇺🇸	$67,867M	$61,480M	AA+	AA+
12	25	HUAWEI	Huawei	🇨🇳	$62,278M	$38,046M	AAA-	AAA-
13	13	Mercedes-Benz	Mercedes-Benz	🇩🇪	$60,355M	$47,936M	AAA-	AA+
14	29	PING AN	Ping An	🇨🇳	$57,626M	$32,609M	AAA-	AAA-
15	12	China Mobile	China Mobile	🇨🇳	$55,670M	$53,226M	AAA	AAA
16	26		Agricultural Bank Of China	🇨🇳	$55,040M	$37,321M	AAA	AAA
17	15	TOYOTA	Toyota	🇯🇵	$52,291M	$43,701M	AAA	AAA-
18	18		State Grid	🇨🇳	$51,292M	$40,944M	AA+	AA+
19	17		Bank of China	🇨🇳	$50,990M	$41,750M	AAA	AAA
20	47		WeChat	🇨🇳	$50,707M	$22,415M	AAA+	AAA
21	20		Tencent (QQ)	🇨🇳	$49,701M	$40,774M	AAA	AAA
22	27		Home Depot	🇺🇸	$47,056M	$33,748M	AAA-	AAA-
23		淘宝网 Taobao.com	Taobao	🇨🇳	$46,628M		AAA-	
24	21	T··Mobile·	T (Deutsche Telekom)	🇩🇪	$46,259M	$40,152M	AAA-	AA+
25	30	The Walt Disney Company	Walt Disney	🇺🇸	$45,750M	$32,590M	AAA	AAA+

Forbes   The World's Most Valuable Brands

The World's Most Valuable Brands

(2019)

	Rank	Brand	Brand Value	1-Yr Value Change	Brand Revenue	Company Advertising	Industry
	#1	Apple	$205.5 B	12%	$265.8 B	-	Technology
	#2	Google	$167.7 B	27%	$136.2 B	$6.4 B	Technology
	#3	Microsoft	$125.3 B	20%	$110.2 B	$1.6 B	Technology
	#4	Amazon	$97 B	37%	$211.4 B	$8.2 B	Technology
	#5	Facebook	$88.9 B	-6%	$48.8 B	$1.1 B	Technology
	#6	Coca-Cola	$59.2 B	3%	$23.8 B	$4.1 B	Beverages
	#7	Samsung	$53.1 B	11%	$221.6 B	$3.6 B	Technology
	#8	Disney	$52.2 B	10%	$33.8 B	$2.8 B	Leisure
	#9	Toyota	$44.6 B	0%	$190.8 B	$4.6 B	Automotive
	#10	McDonald's	$43.8 B	6%	$96.1 B	$389 M	Restaurants

- 10년전과 비교해 보면 어떤 차이가 있을까요?

- 지금으로부터 10년 전인, 2007년 글로벌 컨설팅 그룹 '인터브랜드'에서 발표한 순위에 따르면
  1위 코카콜라, 2위 Microsoft, 3위 IBM, 4위 GE, 5위 NOKIA 를 선두로
  Toyota, Intel, McDonald's, Disney, Benz가 그 뒤를 이었습니다.
  10년 사이에 정말 많은 변화가 생겼죠?

- 브랜드의 가치는 결코 멈춰 있거나 영원하지 않습니다. 계속해서 가치가 올라온 브랜드, 또는 하락한 브랜드, 그리고 언제나 선두를 지켜왔던 브랜드들 모두 각자의 전략을 가지고 변화를 맞이하였을 것입니다.

  - 출처: <https://brandambassador.life/ko/kr/post/brandvalue2017>

2. Top Programming Language

1) IEEE Spectrum

Rank	Language	Type	Score
1	Python	🌐 🖥 ⚙	100.0
2	Java	🌐 📱 🖥	96.3
3	C	📱 🖥 ⚙	94.4
4	C++	📱 🖥 ⚙	87.5
5	R	🖥	81.5
6	JavaScript	🌐	79.4
7	C#	🌐 📱 🖥 ⚙	74.5
8	Matlab	🖥	70.6
9	Swift	📱 🖥	69.1
10	Go	🌐 🖥	68.0
11	Arduino	⚙	67.2
12	HTML,CSS	🌐	66.8

2) [Hackernoon](#) (August, 2017)

| Top 10 Programming Languages	Python	C	Java	C++	C#	R	JavaScript	PHP	Go	Swift
Paradigm	Multi-paradigm: object-oriented, imperative, functional, procedural, reflective	Imperative (procedural), structured	Multi-paradigm: object-oriented (class-based), structured, imperative, generic, reflective, concurrent	Multi-paradigm: procedural, functional, object-oriented, generic	Multi-paradigm: structured, imperative, object-oriented, event-driven, task-driven, functional, generic, reflective, concurrent	Multi-paradigm: array, structured, imperative, functional, procedural, reflective	Multi-paradigm: object-oriented (prototype-based), imperative, functional, event-driven	Imperative, object-oriented, procedural, reflective	Compiled, concurrent, imperative, structured	Multi-paradigm: protocol-oriented, object-oriented, functional, imperative, block-structured
Designed by	Guido van Rossum	Dennis Ritchie	James Gosling	Bjarne Stroustrup	Microsoft	Ross Ihaka and Robert Gentleman	Brendan Eich	Rasmus Lerdorf	Robert Griesemer, Rob Pike, Ken Thompson	Chris Lattner and Apple Inc.
Developer	Python Software Foundation	Dennis Ritchie & Bell Labs (creators), ANSI X3J11 (ANSI C), ISO/IEC	Sun Microsystems (now owned by Oracle corporation)	Bell Labs	Microsoft	R Core Team	Netscape Communications Corporation, Mozilla Foundation, Ecma International	The PHP Development Team, Zend Technologies	Google Inc.	Apple Inc.
First appeared	20 February 1991 (26 years ago)	1972 (45 years ago)	May 23 1995 (22 years ago)	1983 (34 years ago)	2000 (17 years ago)	August 1993 (24 years ago)	December 4, 1995 (21 years ago)	June 8, 1995 (22 years ago)	November 10, 2009 (7 years ago)	June 2, 2014 (3 years ago)
Typing discipline	Duck, dynamic, strong	Static, weak, manifest, nominal	Static, strong, safe, nominative, manifest	Static, nominative, partially inferred	Static, dynamic, strong, safe, nominative, partially inferred	Dynamic	Dynamic, duck	Dynamic, weak, gradual (as for PHP 7.0.0)	Strong, static, inferred, structural	Static, strong, inferred
Platform	Cross-platform	Cross-platform	Windows, Solaris, Linux, OS X	Linux, MacOS, Solaris	Common Language Infrastructure	UNIX platforms, Windows, MacOS	Cross-platform	Unix-like, Windows	Linux, macOS, FreeBSD, NetBSD, OpenBSD, Windows, Plan 9, DragonFly BSD, Solaris	Darwin, Linux, FreeBSD
Filename extensions	.py, .pyc, .pyo (prior to 3.5), .pyw, .pyz (since 3.5)	.c, .h	.java, .class, .jar	.cc, .cpp, .C, .c++, .h, .hh, .hpp, .hxx, .h++	.cs	.r, .R, .RData, .rds, .rda	.js	.php, .phtml, .php3, .php4, .php5, .php7, .phps	.go	.swift

3) [TIOBE Index](#) for Dec. 2019

Dec 2019	Dec 2018	Change	Programming Language	Ratings	Change
1	1		Java	17.253%	+1.32%
2	2		C	16.086%	+1.80%
3	3		Python	10.308%	+1.93%
4	4		C++	6.196%	-1.37%
5	6	⌃	C#	4.801%	+1.35%
6	5	⌄	Visual Basic .NET	4.743%	-2.38%
7	7		JavaScript	2.090%	-0.97%
8	8		PHP	2.048%	-0.39%
9	9		SQL	1.843%	-0.34%
10	14	⌃⌃	Swift	1.490%	+0.27%
11	17	⌃⌃	Ruby	1.314%	+0.21%
12	11	⌄	Delphi/Object Pascal	1.280%	-0.12%
13	10	⌄	Objective-C	1.204%	-0.27%
14	12	⌄	Assembly language	1.067%	-0.30%
15	15		Go	0.995%	-0.19%
16	16		R	0.995%	-0.12%
17	13	⌄⌄	MATLAB	0.986%	-0.30%
18	25	⌃⌃	D	0.930%	+0.42%
19	19		Visual Basic	0.929%	-0.05%
20	18	⌄	Perl	0.899%	-0.11%

TIOBE Programming Community Index

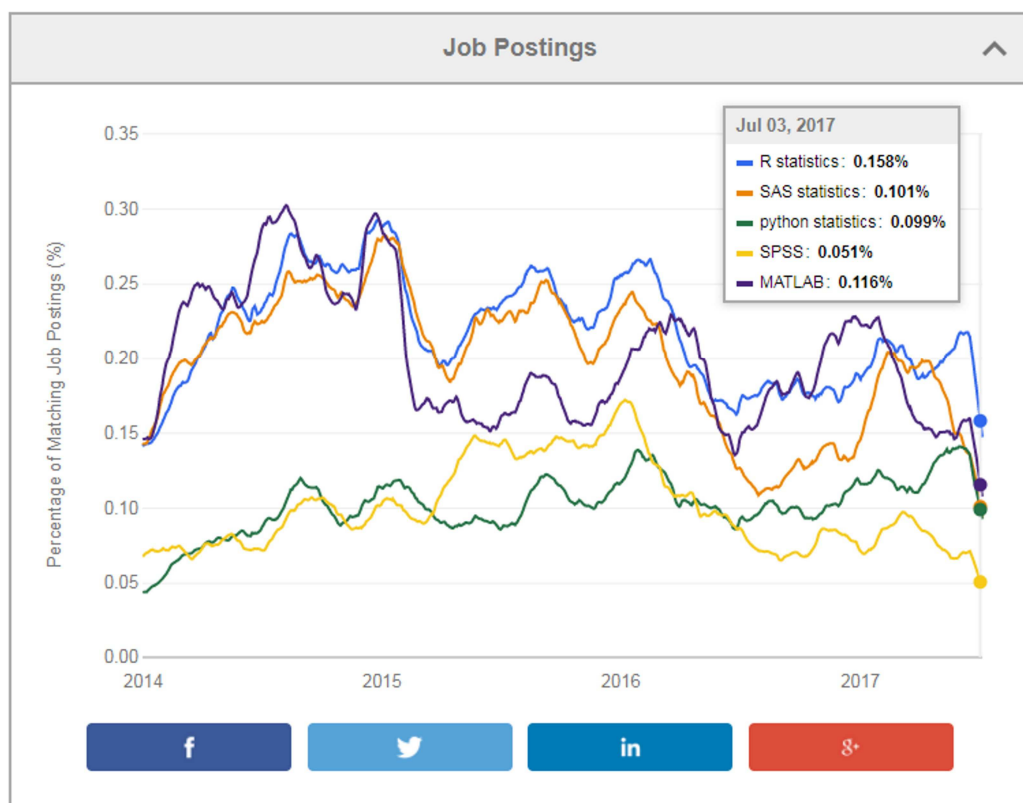Source: www.tiobe.com

TIOBE Index for R
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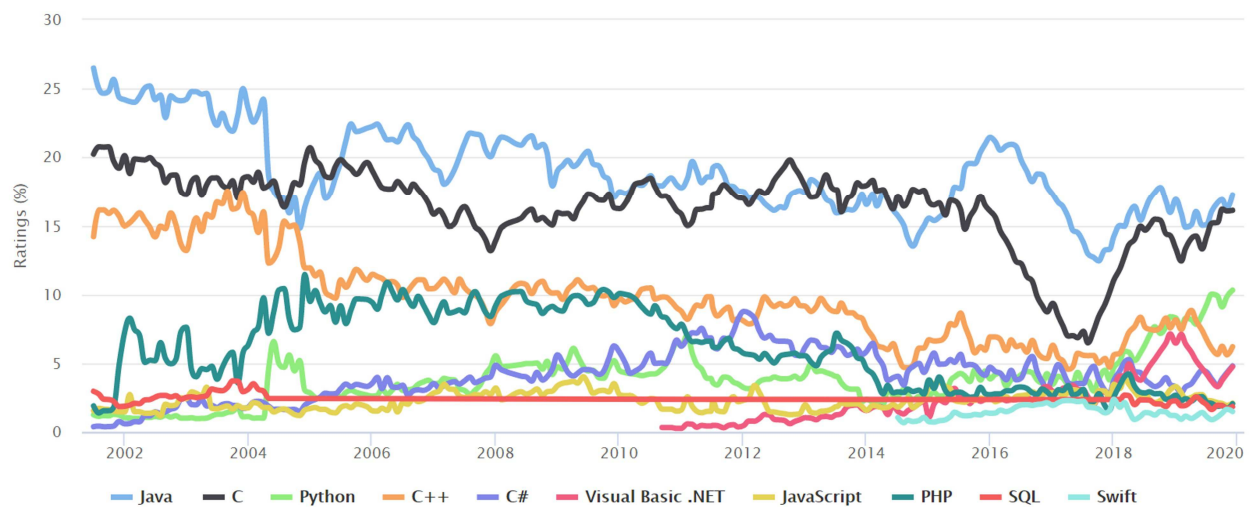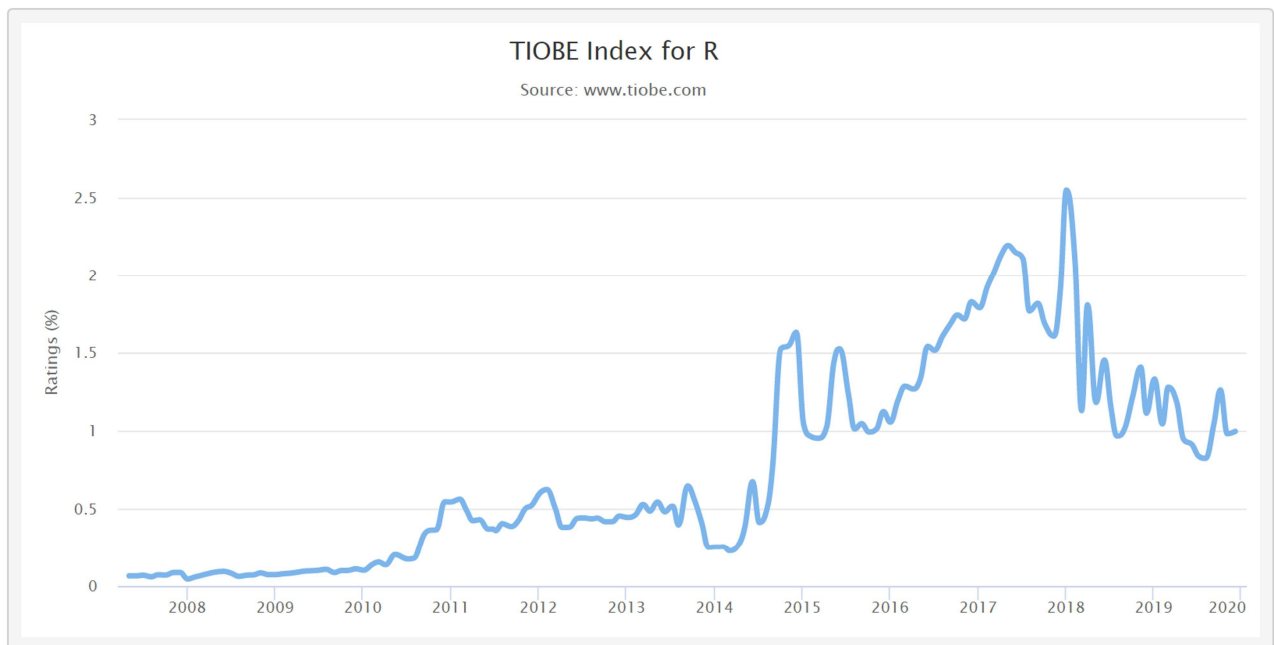
3. R statistics, SAS statistics, and python statistics Job
Trends

R statistics, SAS statistics, python statistics, SPSS, and MATLAB Job Trends

Job Postings

Jul 03, 2017

R statistics: **0.158%**
SAS statistics: **0.101%**
python statistics: **0.099%**
SPSS: **0.051%**
MATLAB: **0.116%**

4. List of Big Companies using R (July 22, 2017)

The continuous popularity and growth of R Programming Language has been helping data-driven companies succeed for more than a decade. In recent years, almost every industry sees data and analytics as a strategic competitive advantage. And R is the language of choice for many data scientist and data analyst. According to O'Reilly's 2016 data science salary survey, **R** was in second position in the category of programming languages for data science while **SQL** ranked first.

On the other hand, according to another popular *survey KDnuggets Analytics/Data Science 2016 Software Poll: top 10 most popular tools in 2016*, R got top rank with 49% vote.