O'Reilly Radar: Open Source Tool Trends - What Our Users Tell Us

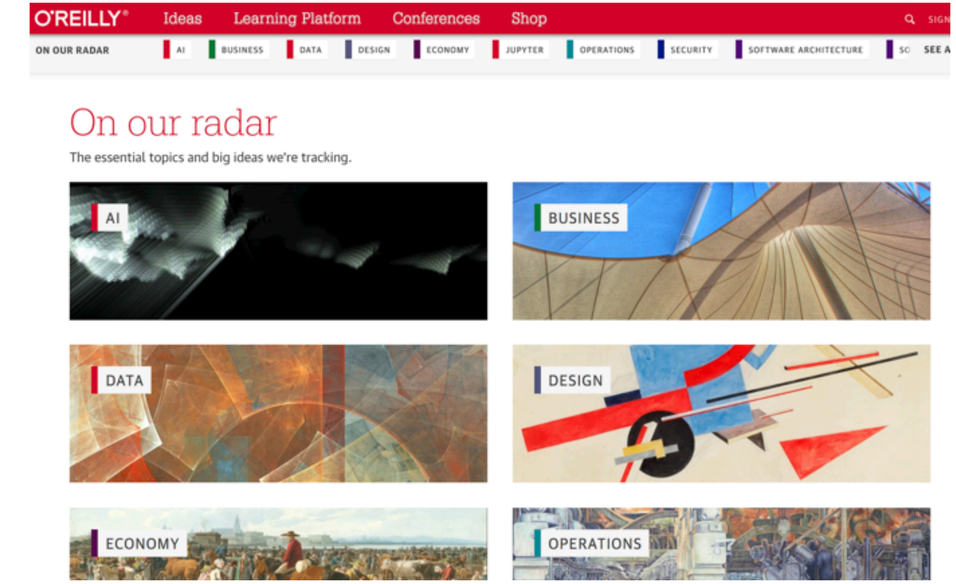
Roger Magoulas

July 19, 2018

O'Reilly Radar

- Assessing world of technology & the technology impact on the world
  - Open Source, Web 2.0, Big Data, DevOps, Next:Economy (WTF)

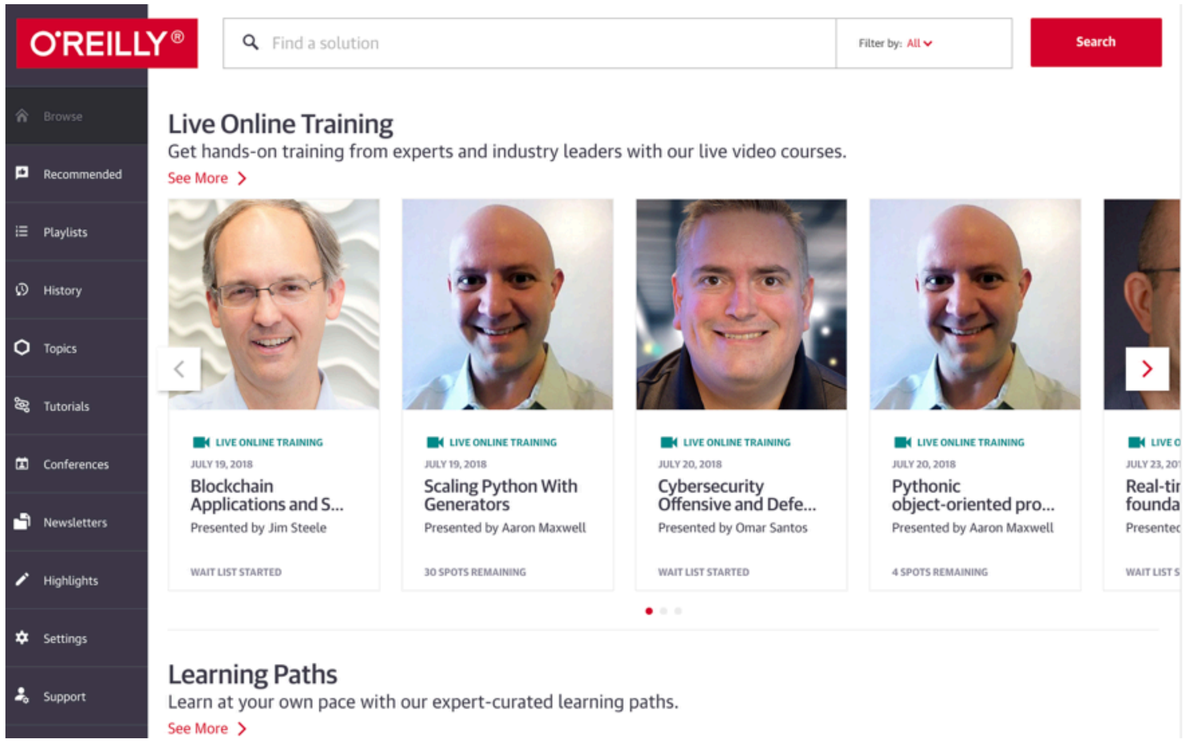
- Trend Analysis
  - Qualitative and Quantitative
  - External and Internal Data Sources



Open Source Tool Trends

- Trends
- Emerging Topics

- O'Reilly Learning Platform (Safari)
  - Search
  - Content Usage



O’Reilly Learning Platform

- Safari
  - Online Learning Resource
  - safaribooksonline.com
- 50,000+ Titles
  - Text, Video, Audio, Interactive, (Jupyter) Notebooks, Live OnLine Training

O’Reilly Learning Platform

- Demographics
  - 2,500,000 Paid (Licensed) Users
  - 5,100 Group/Enterprise Customers
    - 30% of Fortune 1000
    - 60% of Customers w/ 10,000+ Employees
  - 68,000 Individual Subscribers
  - Linear + Non-Linear Learning - Search for Answers

Demographics - Top Industries

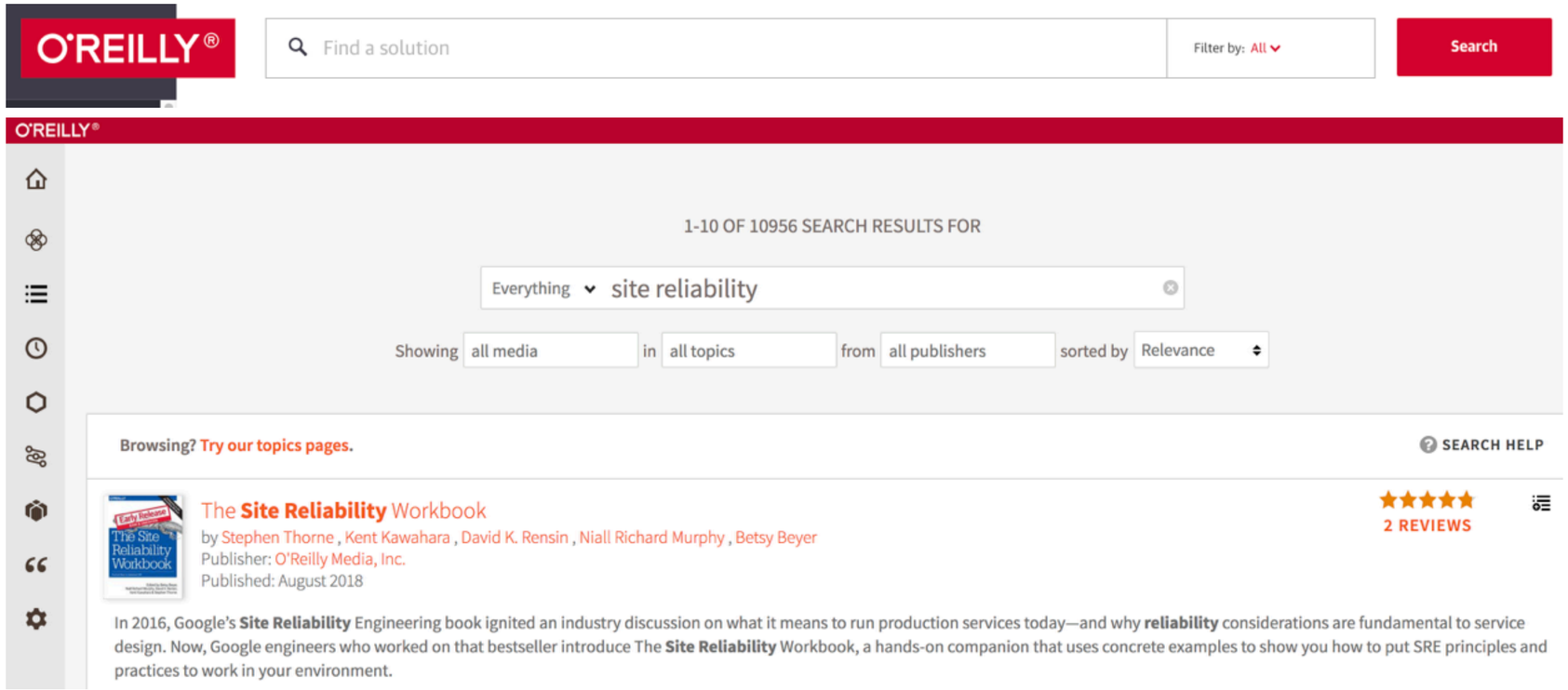
Industry	Account Share	Usage Share
Consulting & Professional Services	20%	30%
Finance & Banking	9%	18%
Software	7%	14%
Computers, Electronics & HW	4%	14%
Non-profit / Prof Association	2%	5%
Retail / E-Commerce	4%	3%
Manufacturing	3%	2%
Media / Entertainment	5%	2%
Higher Education	5%	2%

Bias + Notes

- Enterprise-Scale
  - Consulting / F&B / SW / HW
- Consider Maturity
  - Newer Tech Gets More Attention
- Tech Takes Time
- Pay Attention To Scale
- Search: Long Tail

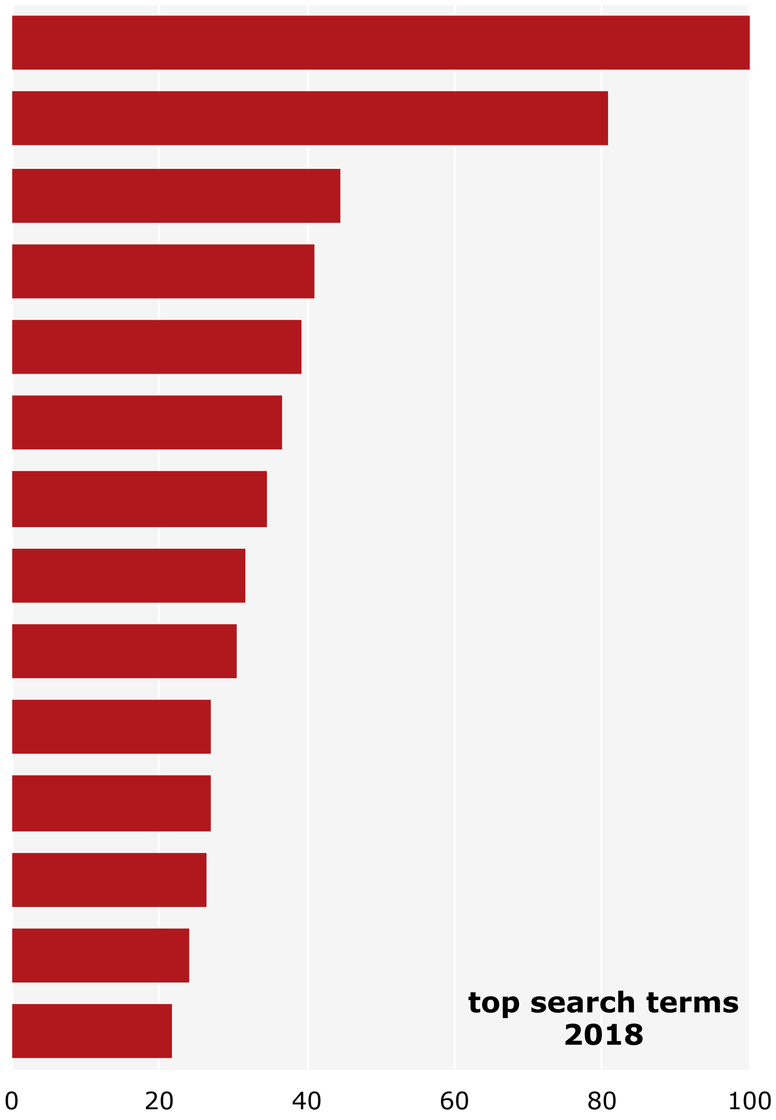
Search

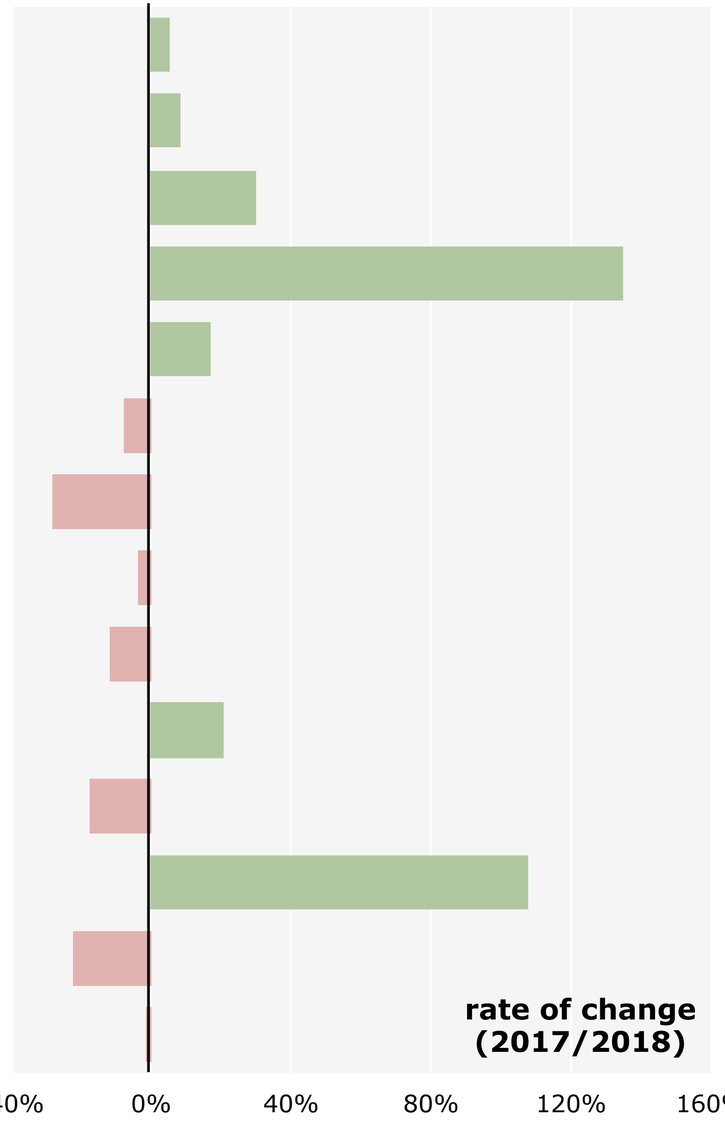
- Top Searches
- Programming Languages
- ML/AI



Top Searches - 2018

Term	Rank	Rank Chg
python	1	-
java	2	-
aws	3	3
kubernetes	4	15
ml	5	2
docker	6	-2
angular	7	-4
react	8	-
spark	9	-4
go	10	3
javascript	10	-1
blockchain	11	19
microservices	12	-2
spring	13	1





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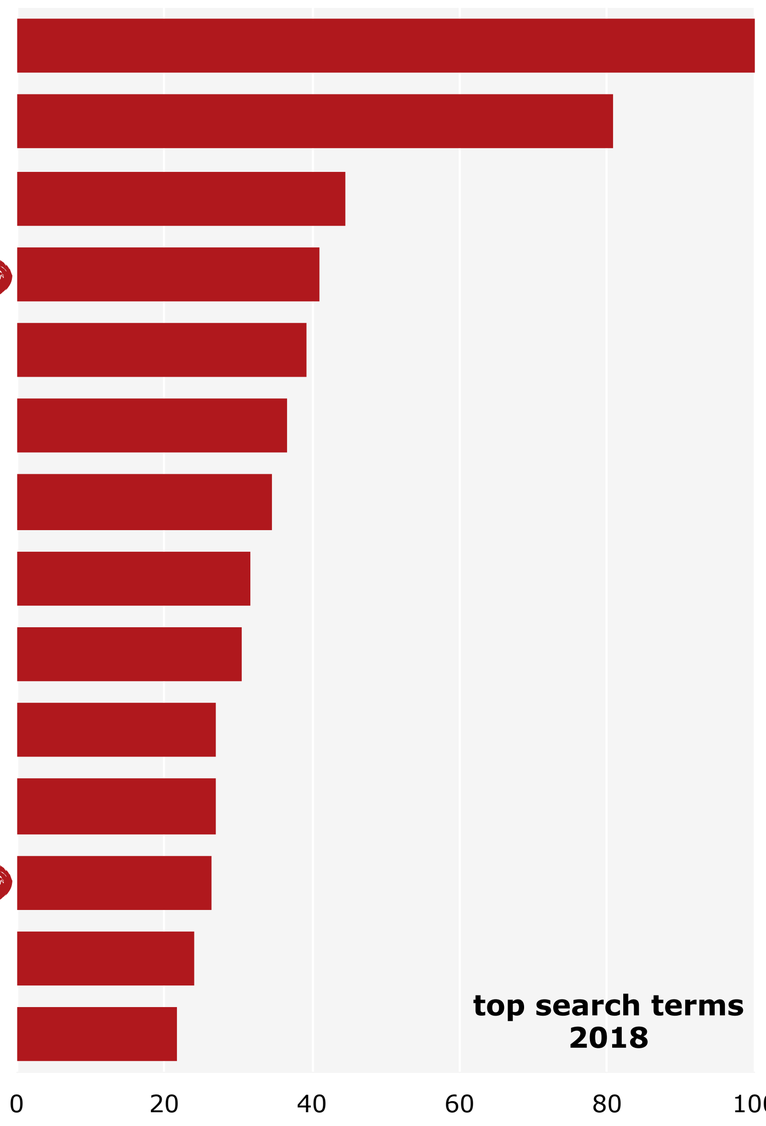

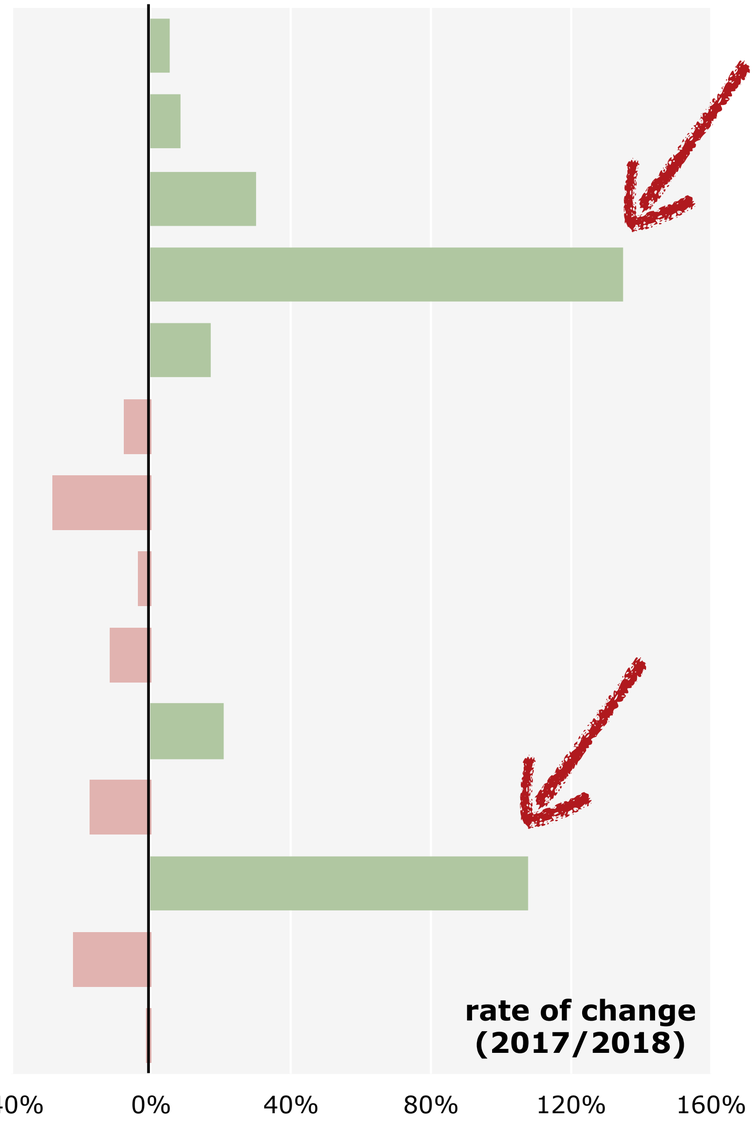

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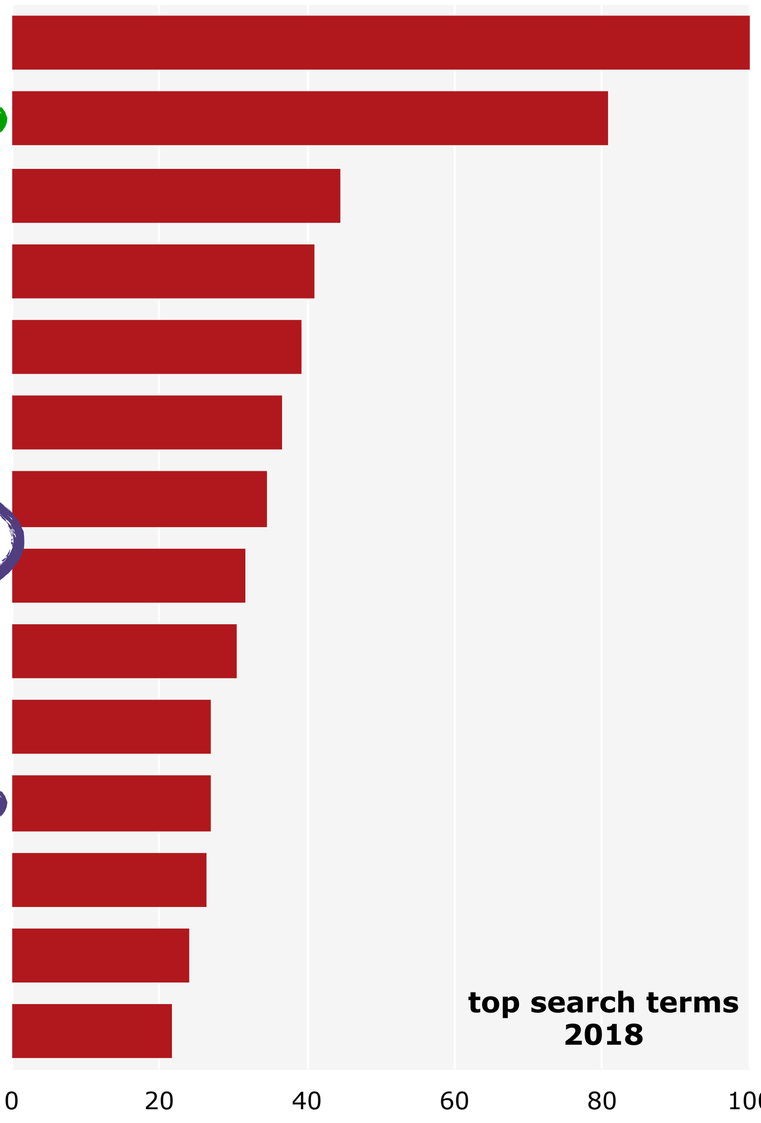
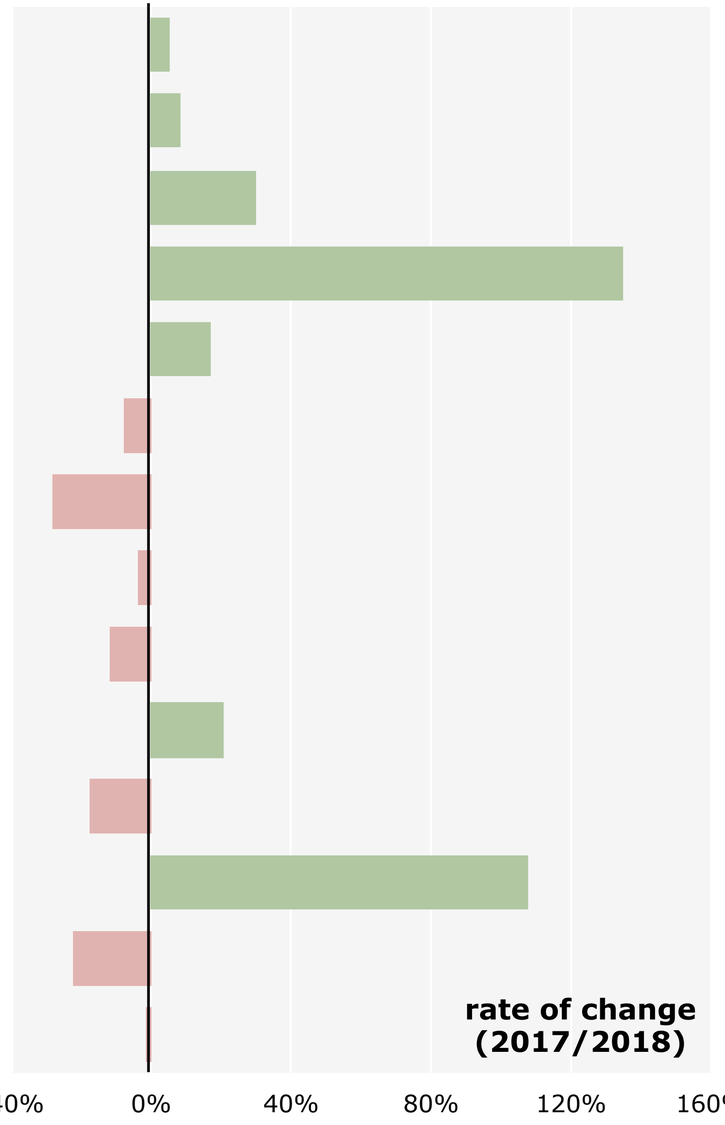
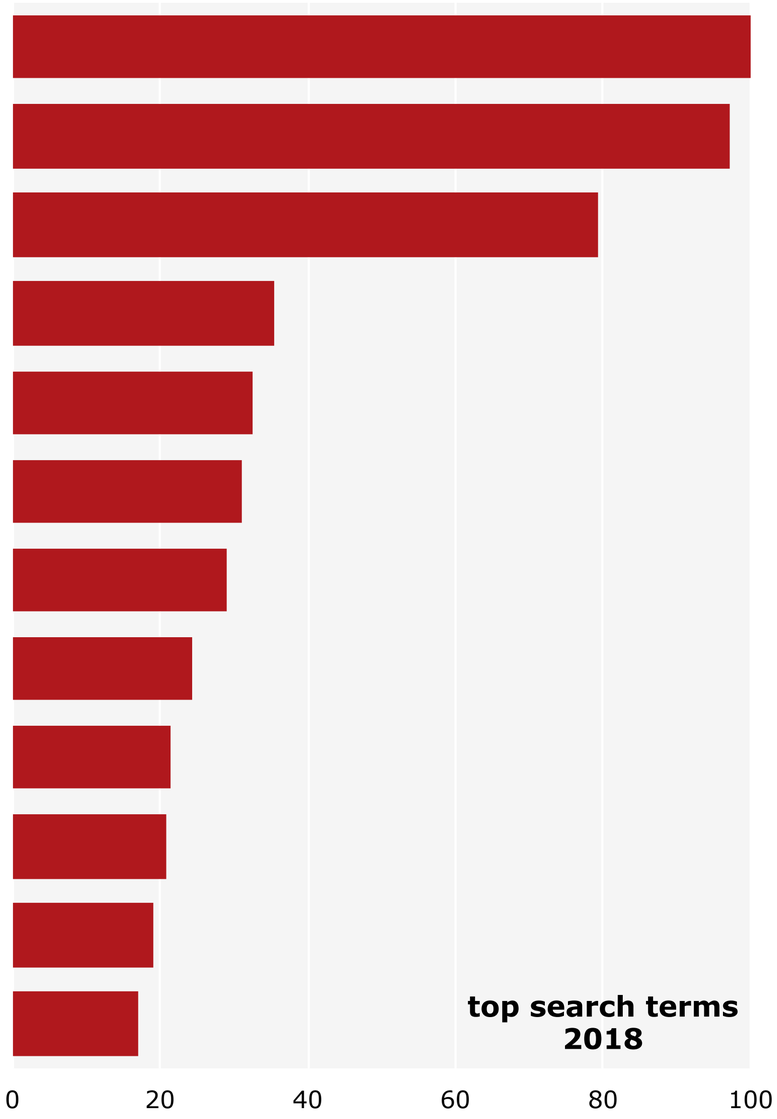
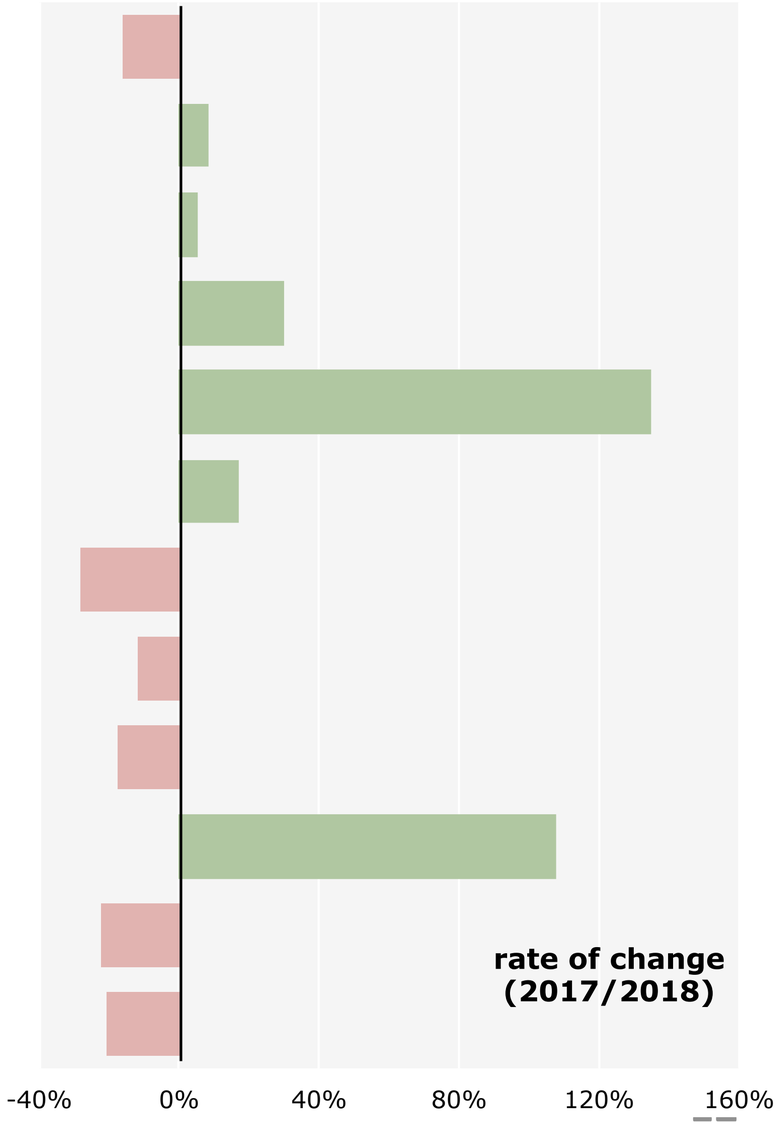




Top Searches - 2018

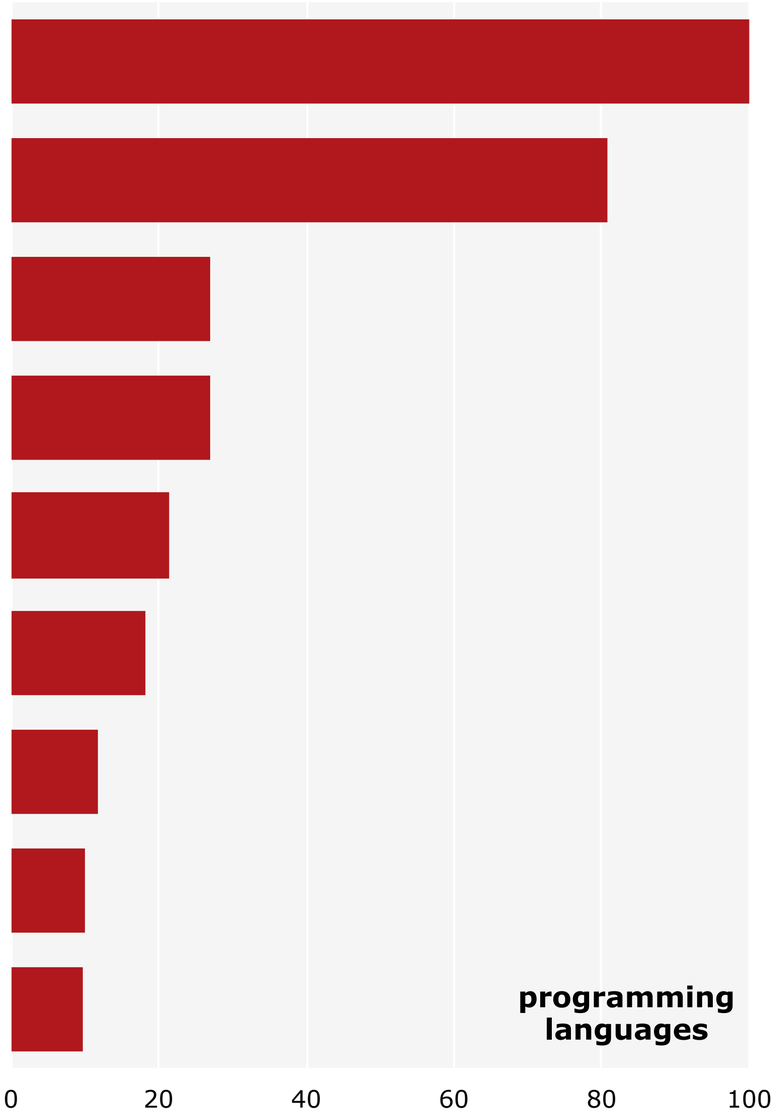
Term	Rank	Rank Chg
javascript*	1	–
java*	2	–
python	3	–
aws	4	2
kubernetes	5	2
machine learning	6	10
docker	7	1
spark	8	-3
go	9	-3
blockchain	10	1
microservices	11	16
scala	12	-3

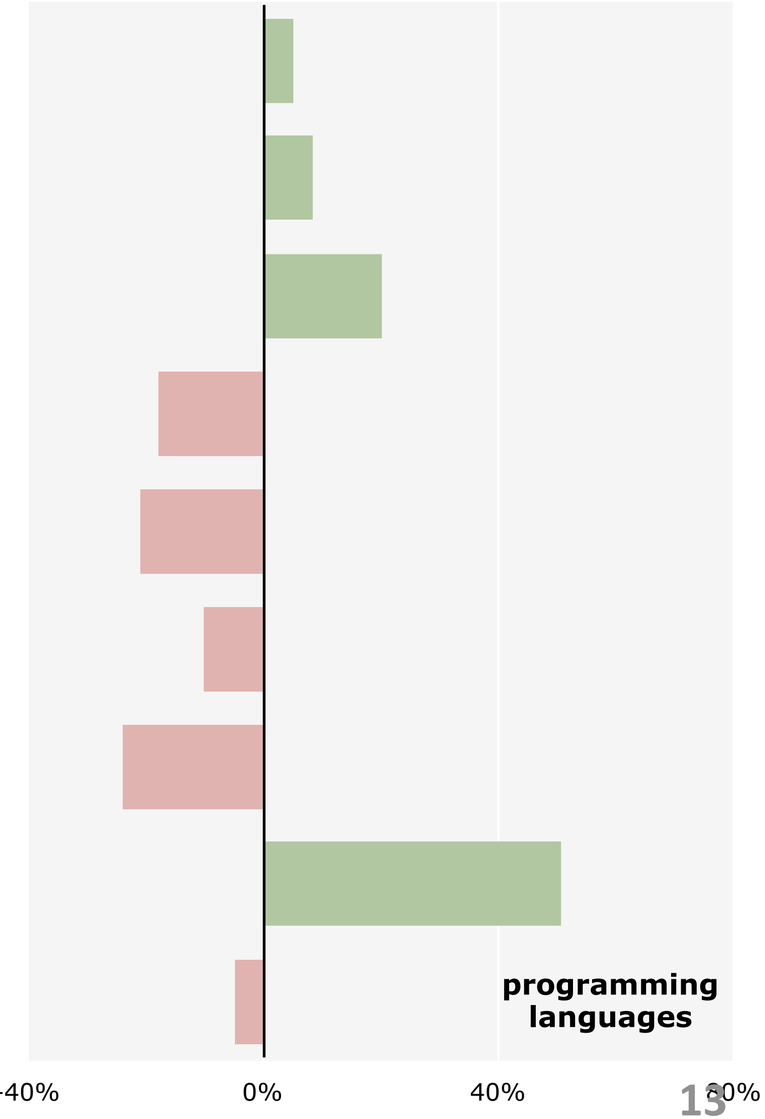




Programming Languages - Top

Term	Rank	Rank Chg
python	1	–
java	2	–
go	10	3
javascript	10	-1
scala	14	-3
c++	18	-3
c#	32	-8
kotlin	35	13
sql	37	–





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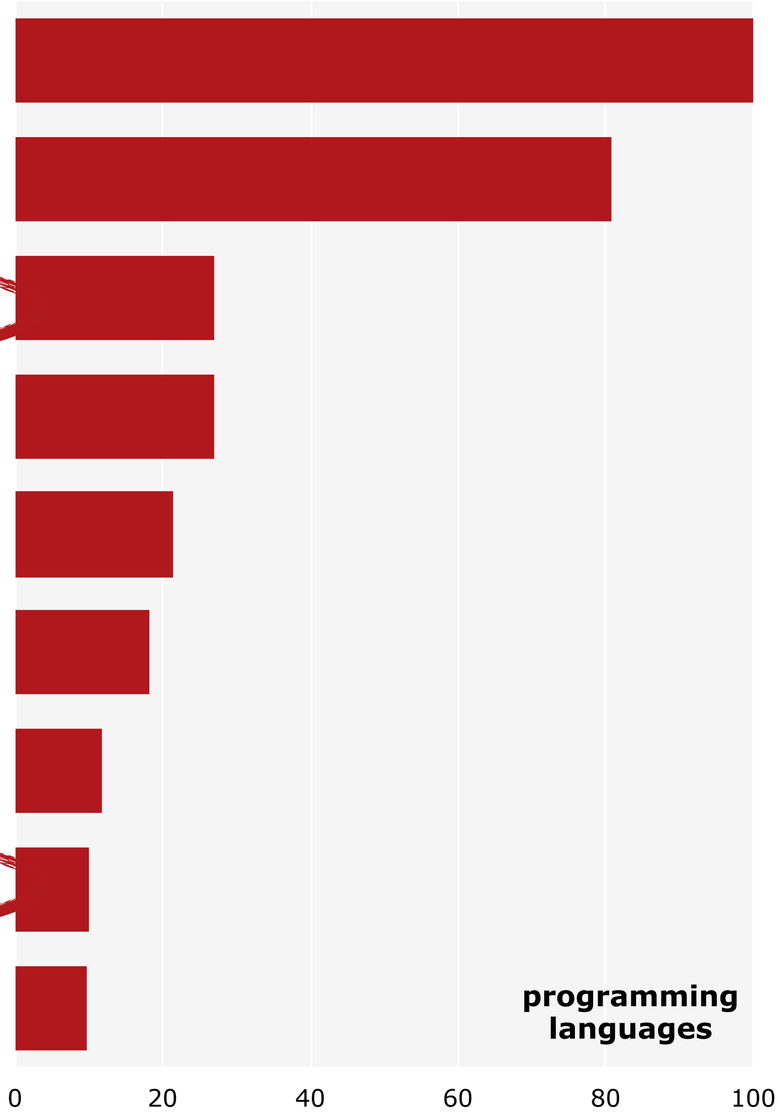
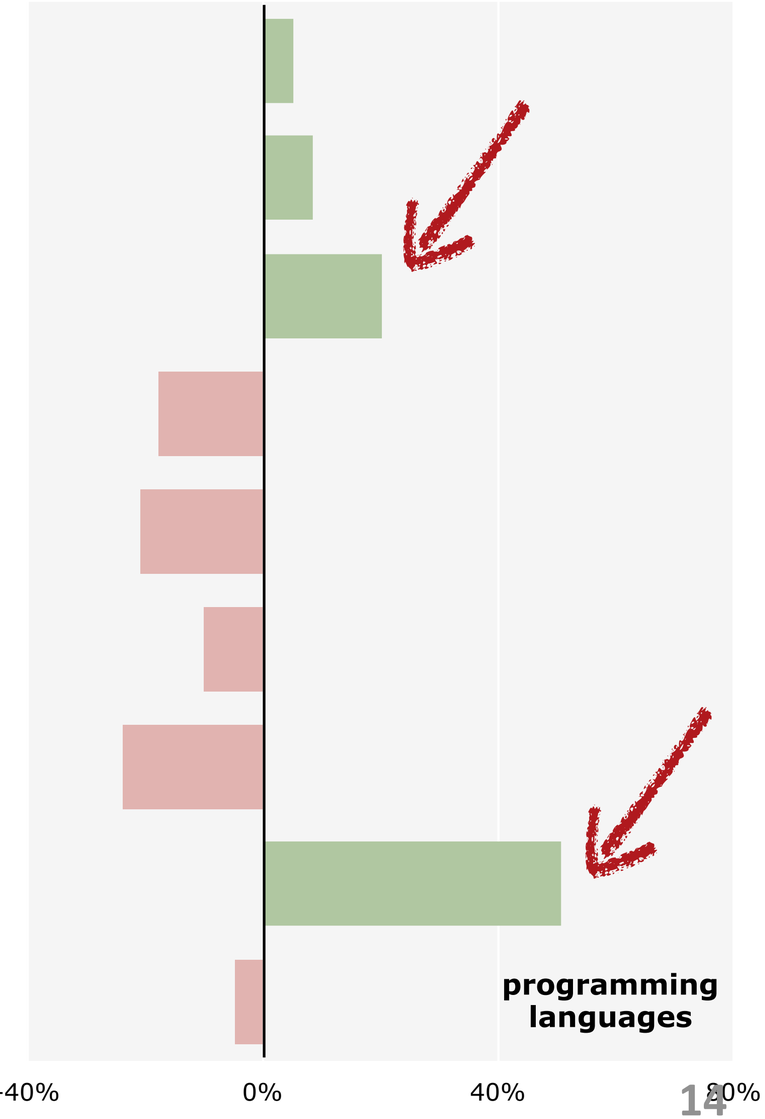
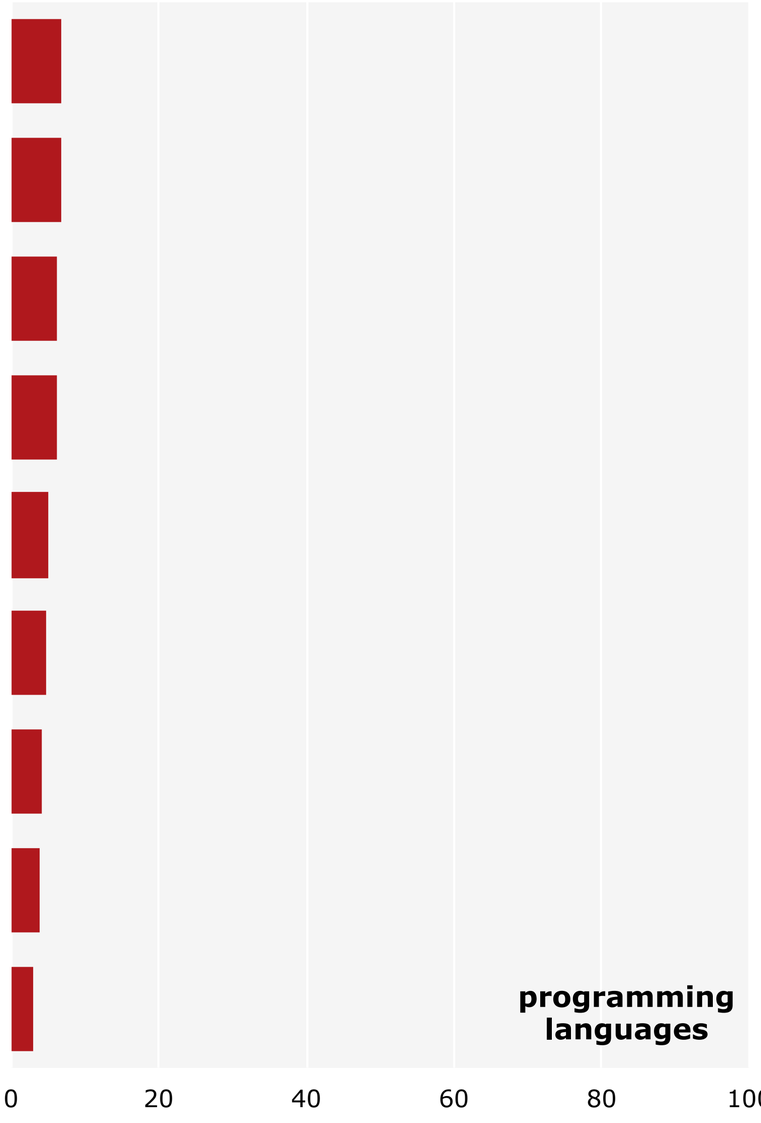
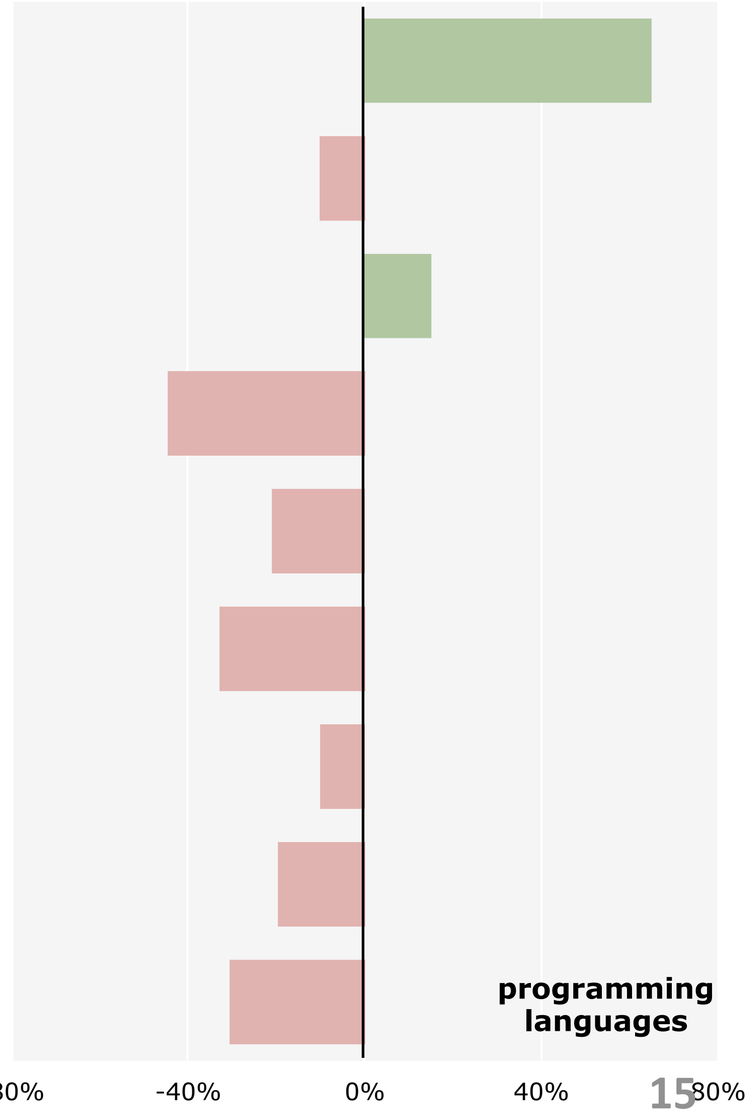




Programming Languages - Next

Term	Rank	Rank Chg
rust	45	34
r	45	0
c	49	15
swift	49	-15
php	62	-10
ruby	64	-18
haskell	71	1
clojure	77	-5
perl	87	-8





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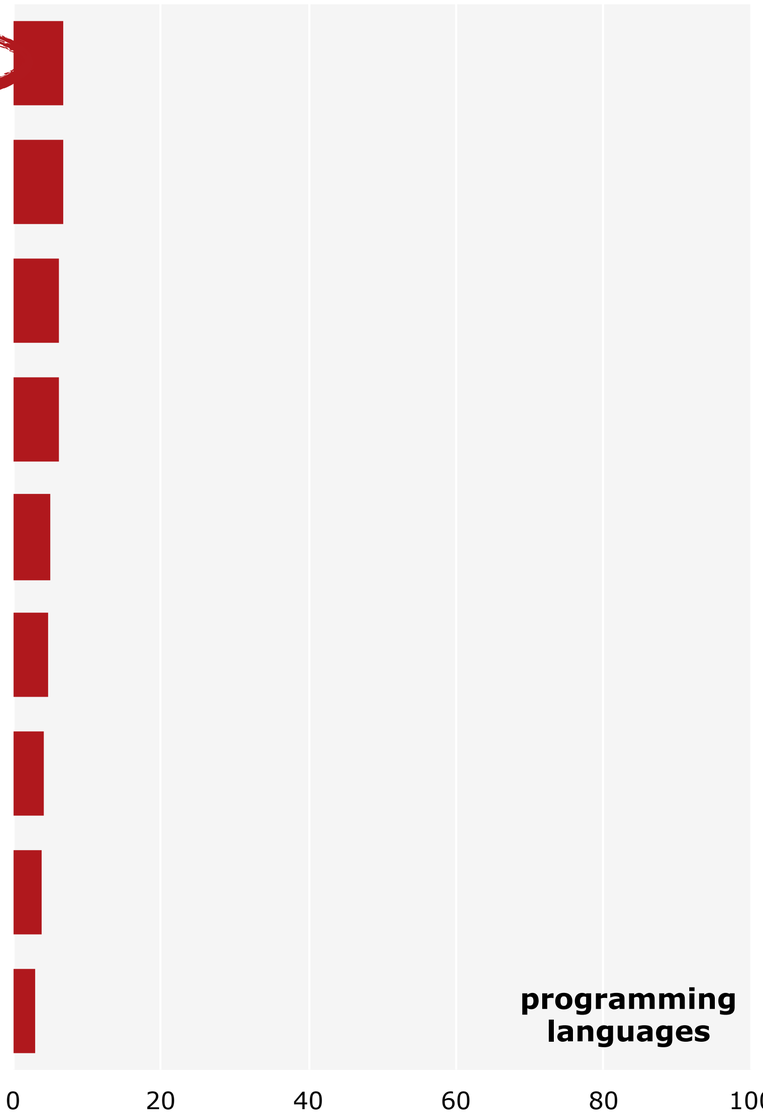

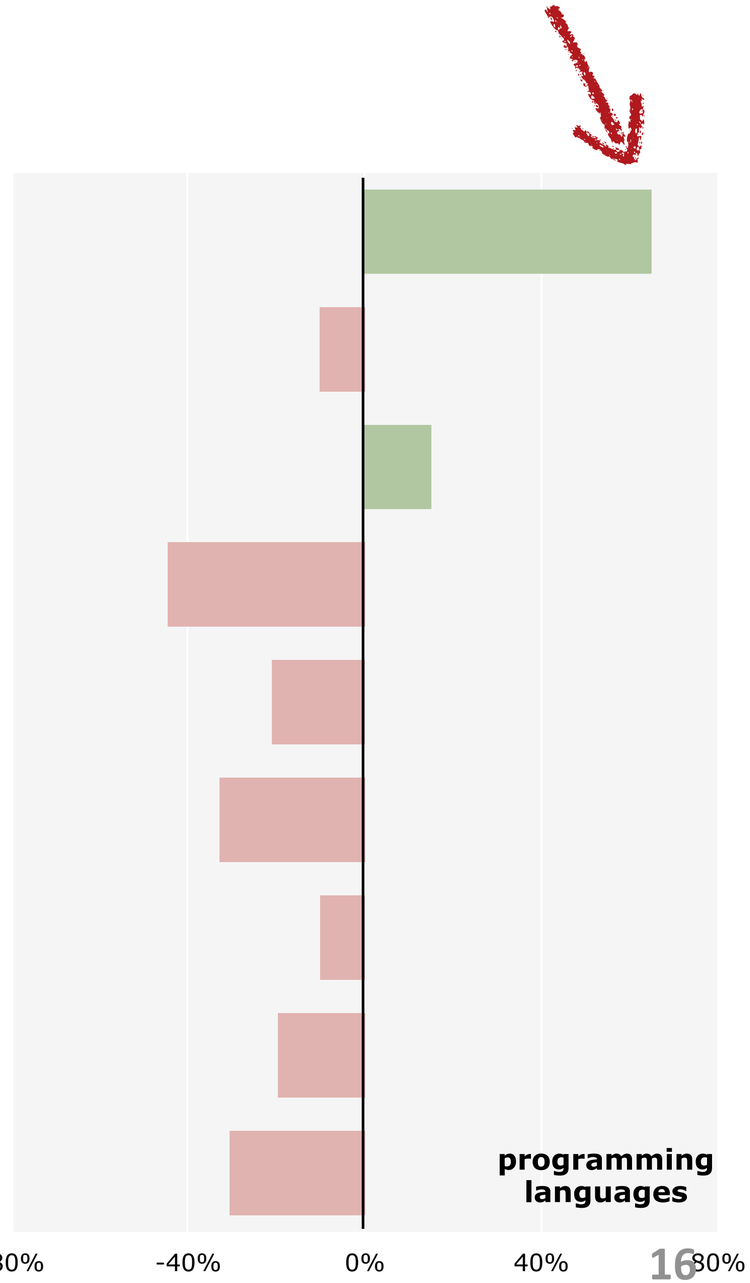

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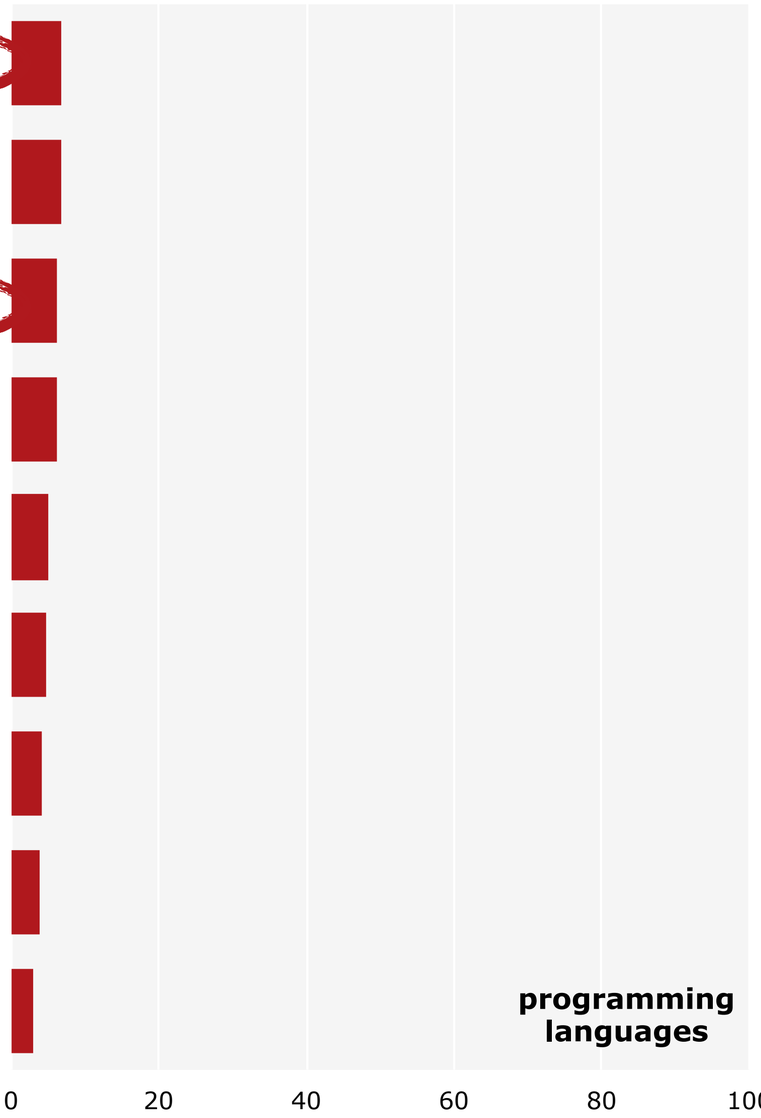
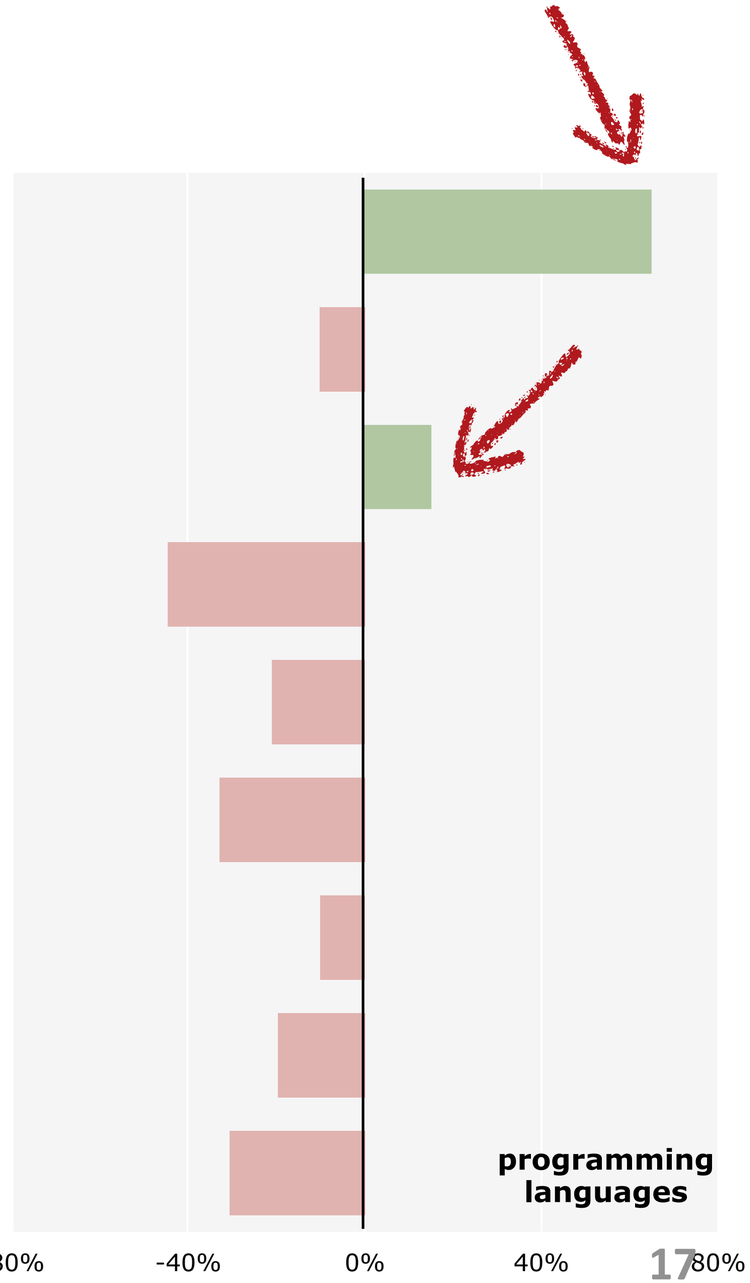
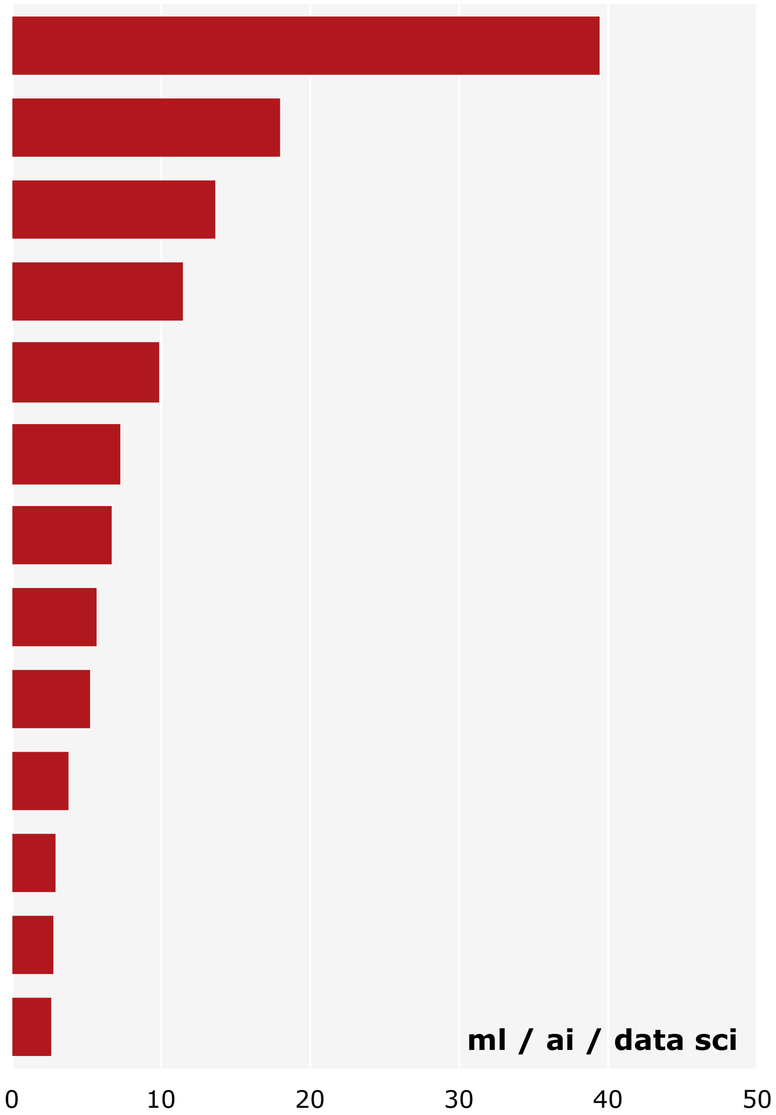
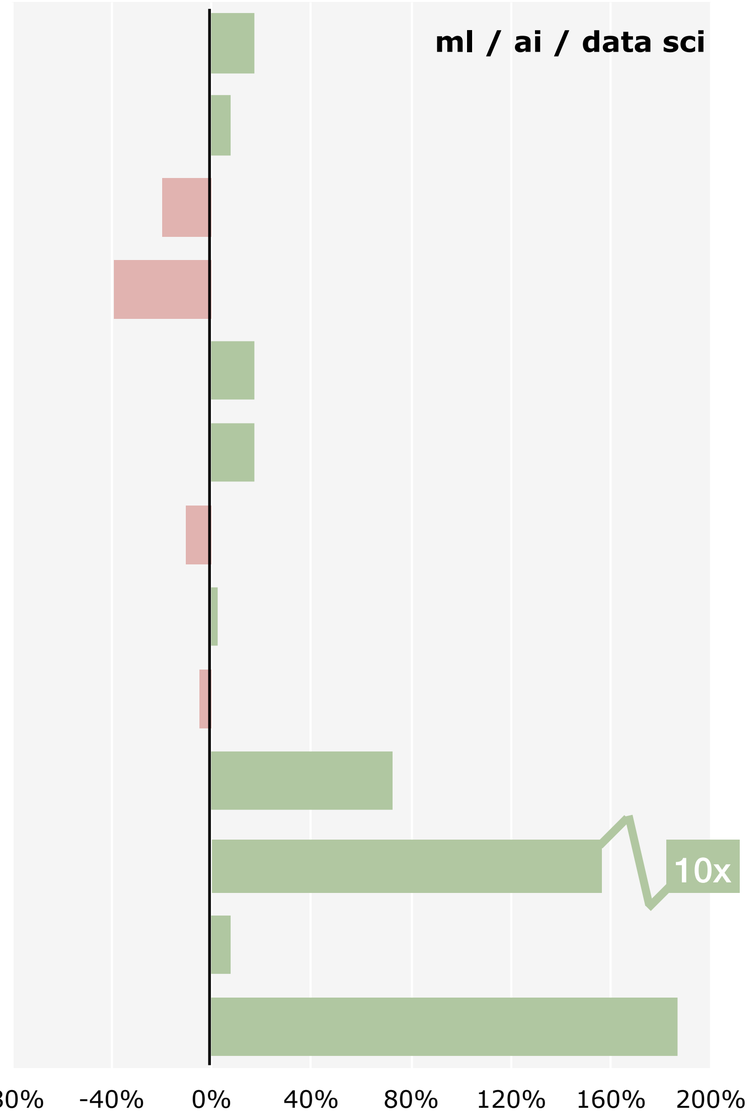




Machine Learning / AI / Data Sci

Term	Rank	Rank Chg
ml	5	2
deep learning	20	2
tensorflow	27	-7
data science	33	-17
ai	36	5
pandas	44	9
r	45	-
statistics	55	2
nlp	60	1
keras	77	28
pytorch	87	41
linear algebra	89	10
Reinforcement Learning	91	33





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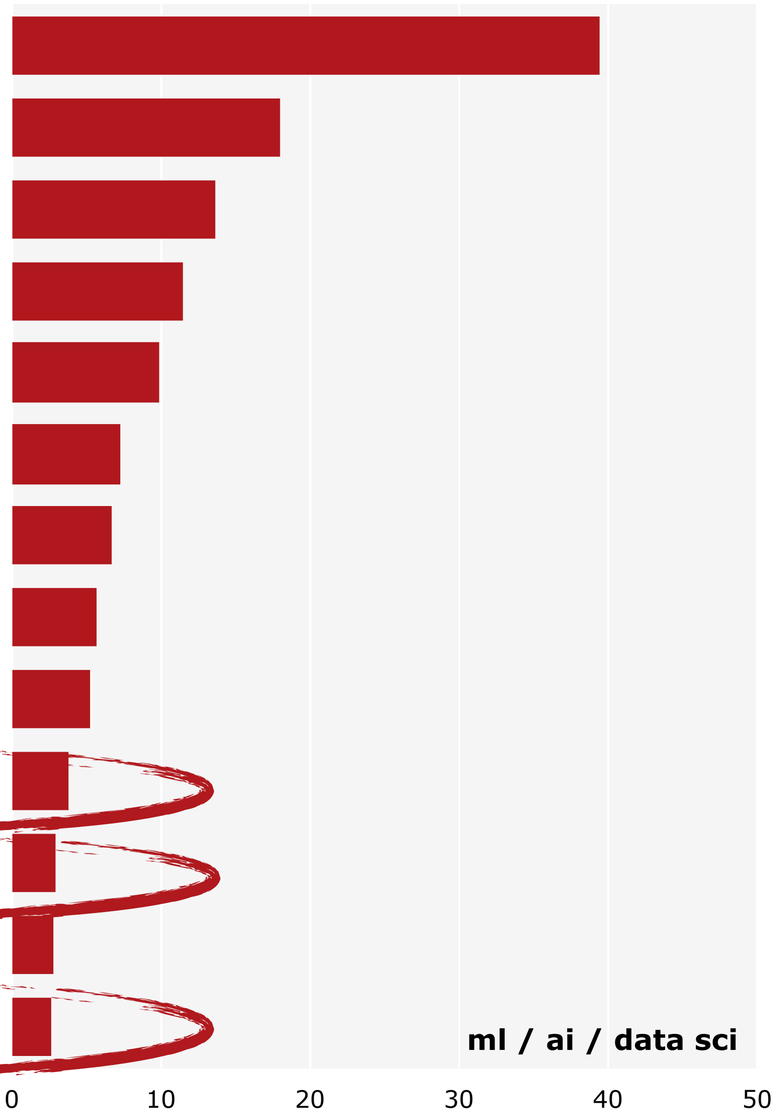
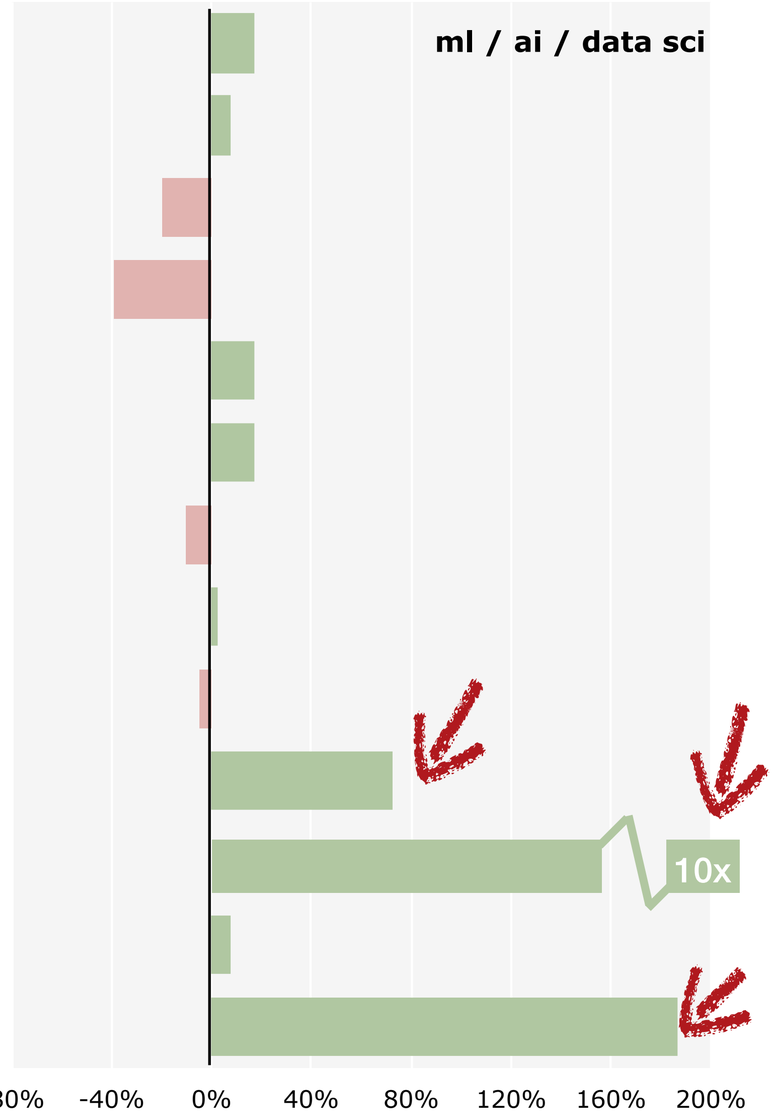


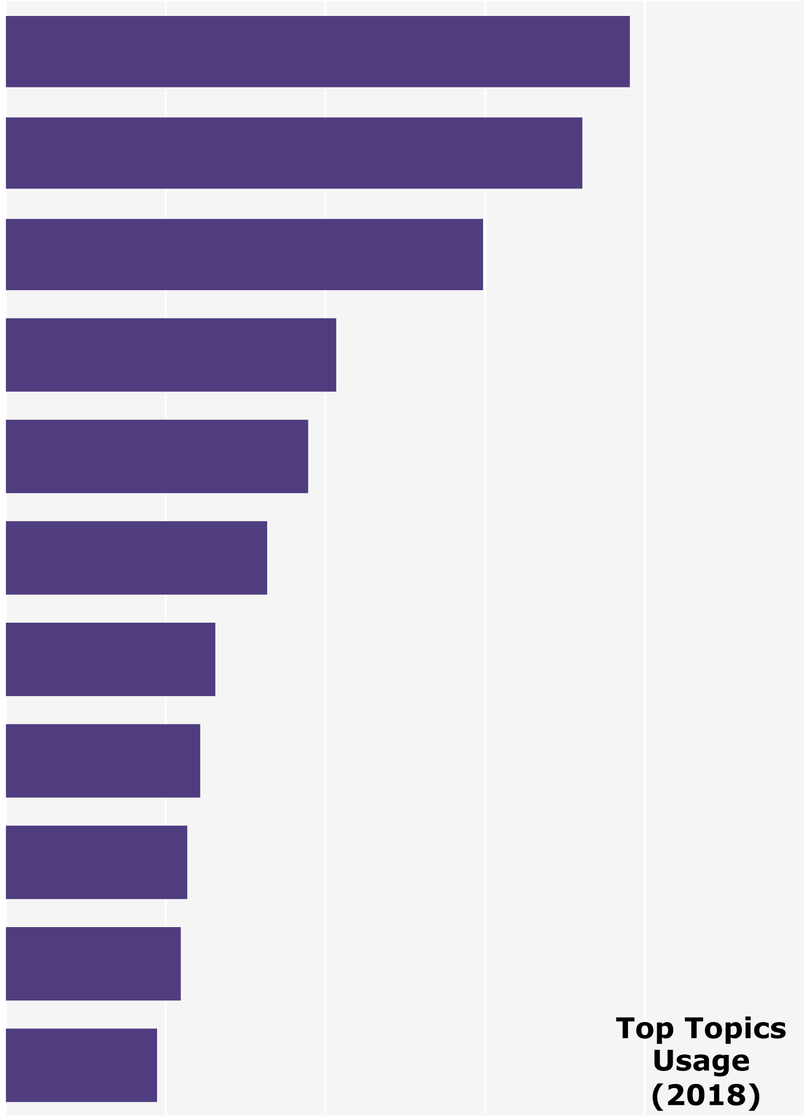


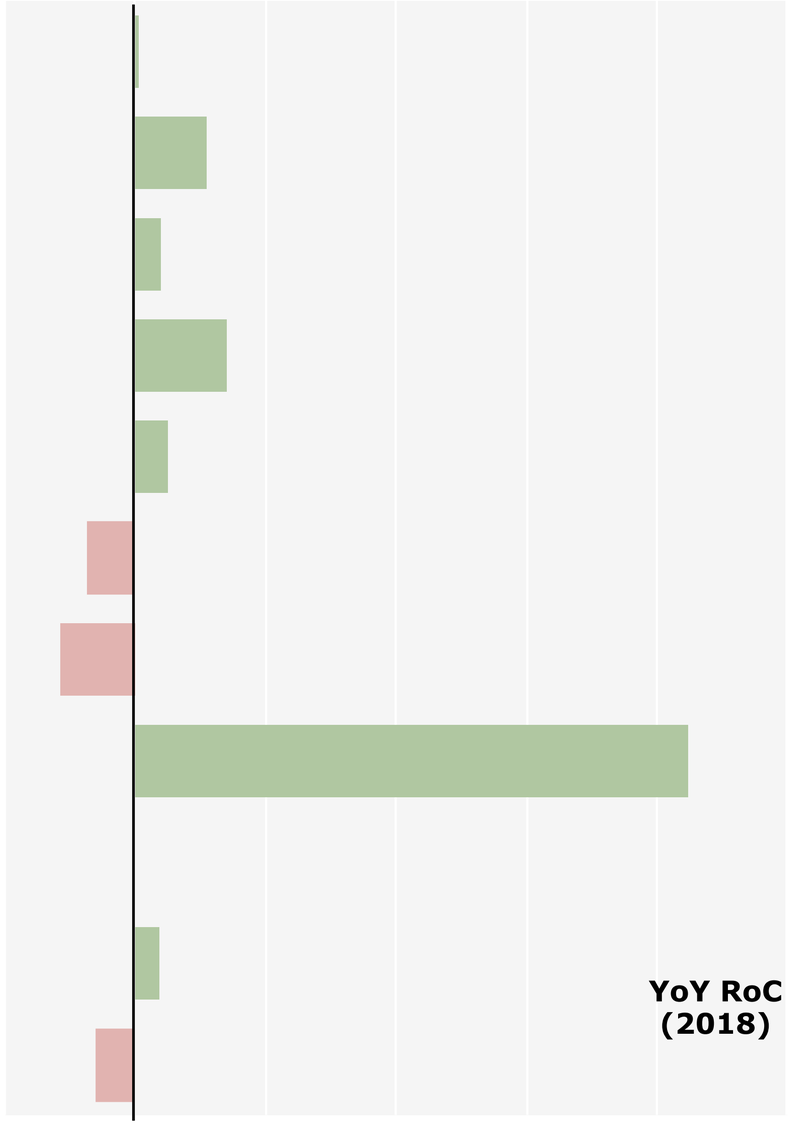
Usage

- Top Topics
- Languages
- Emerging Topics

Usage - Top Topics

Term	Rank	Rank Chg
Data Mgmt	1	-
Java	2	-
Python	3	-
ML & AI	4	3
SW Arch	5	-
JavaScript	6	-2
Cisco	7	-3
AWS	8	24
Security	9	-1
Agile	10	2
DevOps	11	-2





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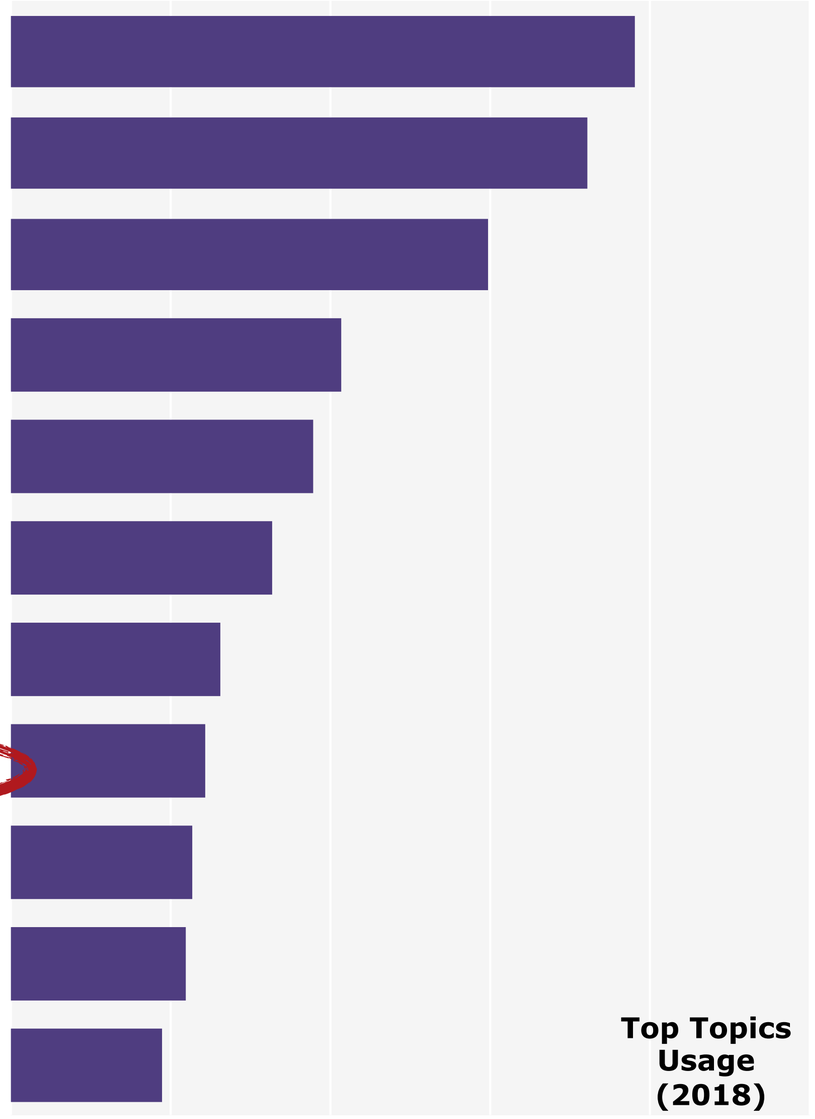

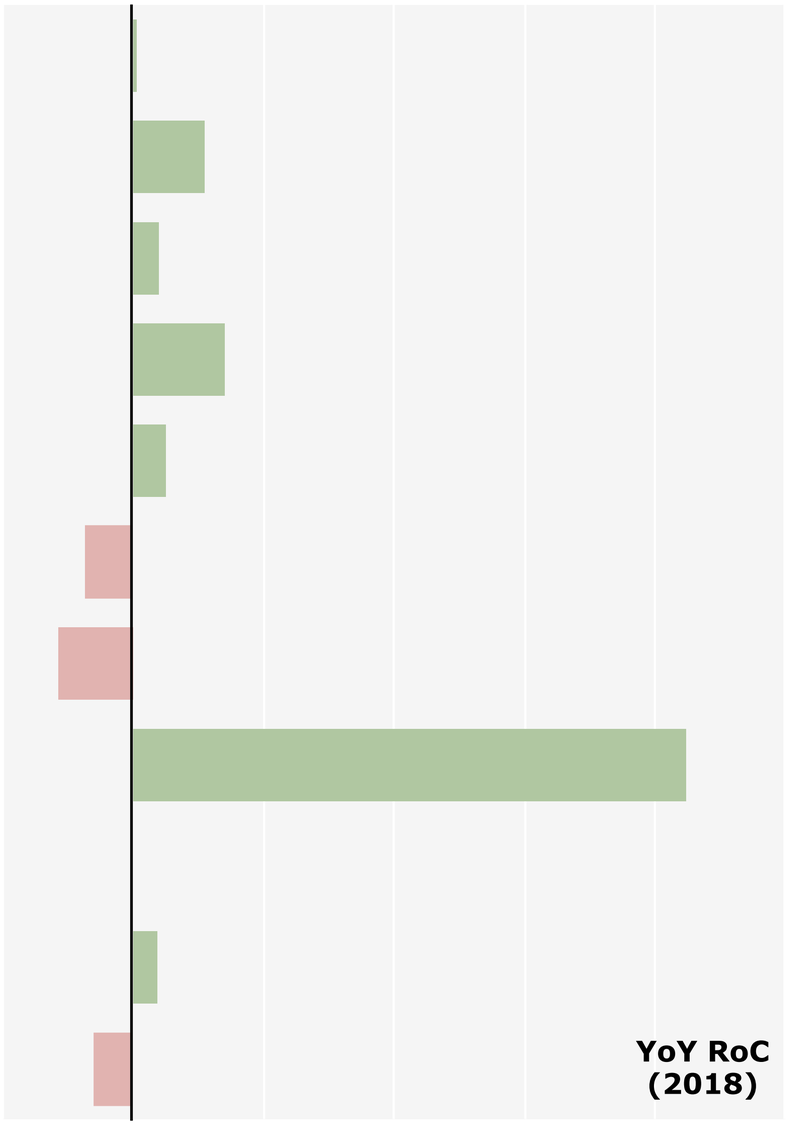

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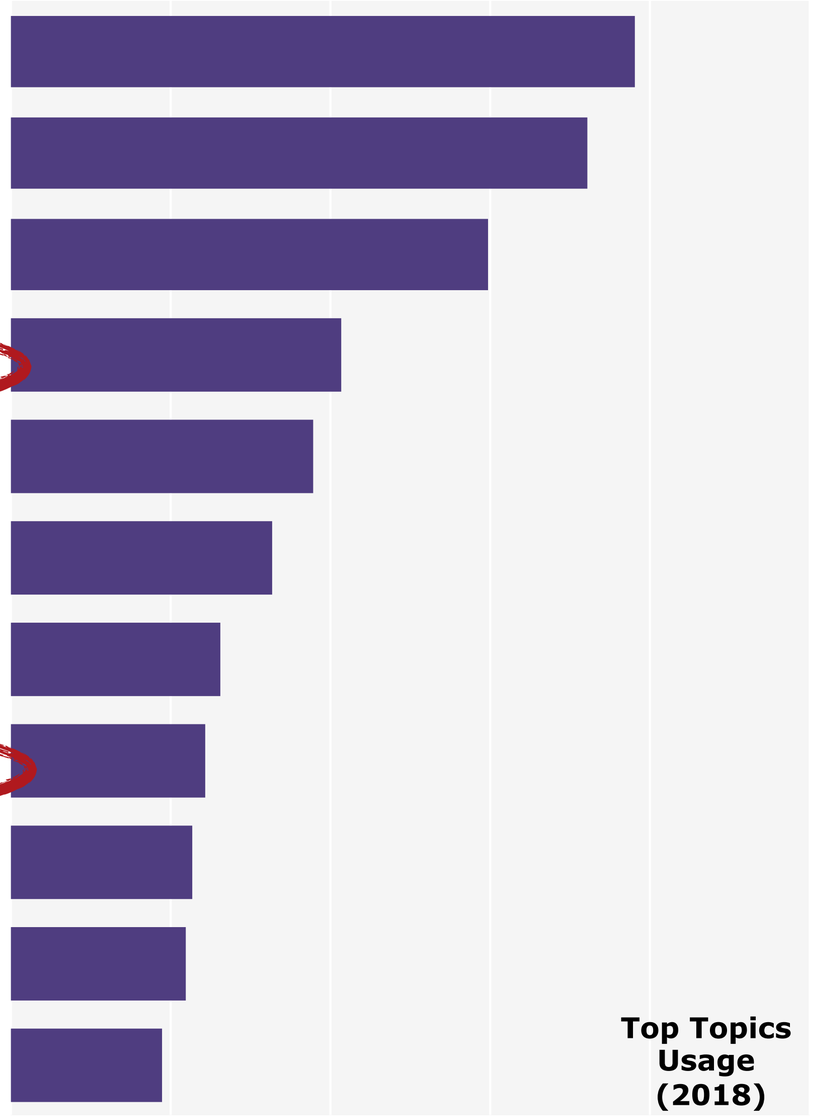

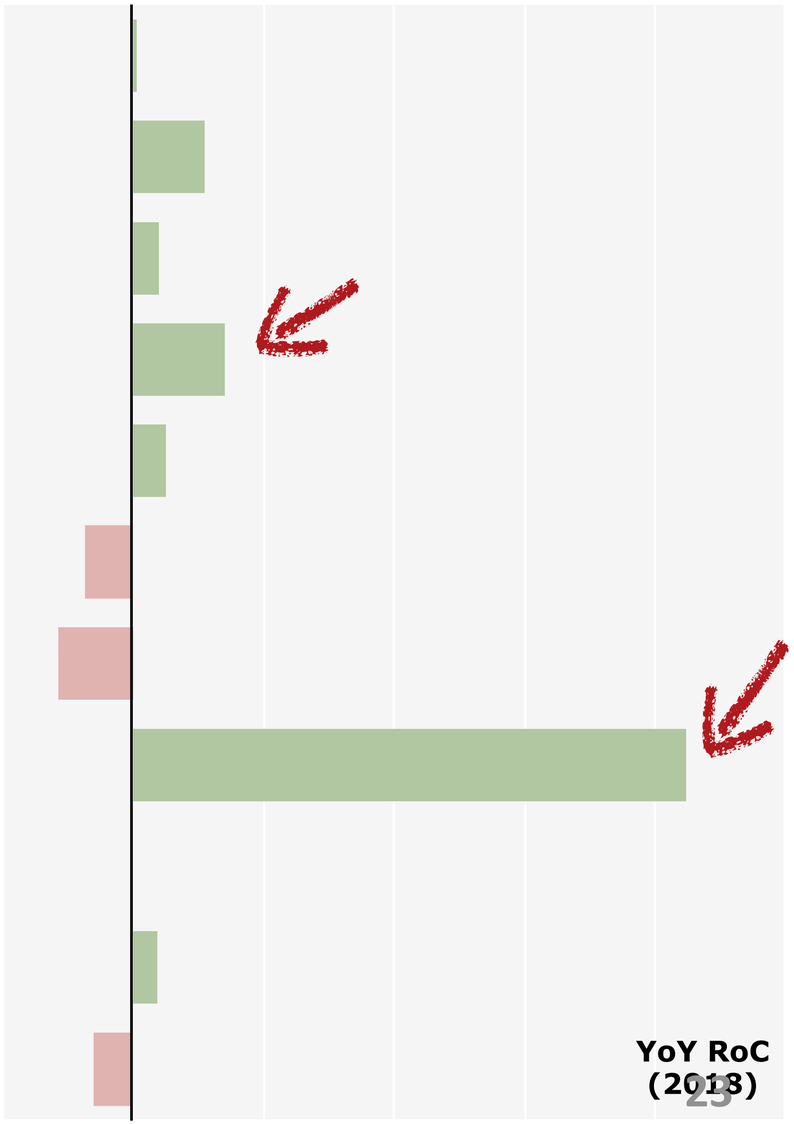

Usage - Programming Languages

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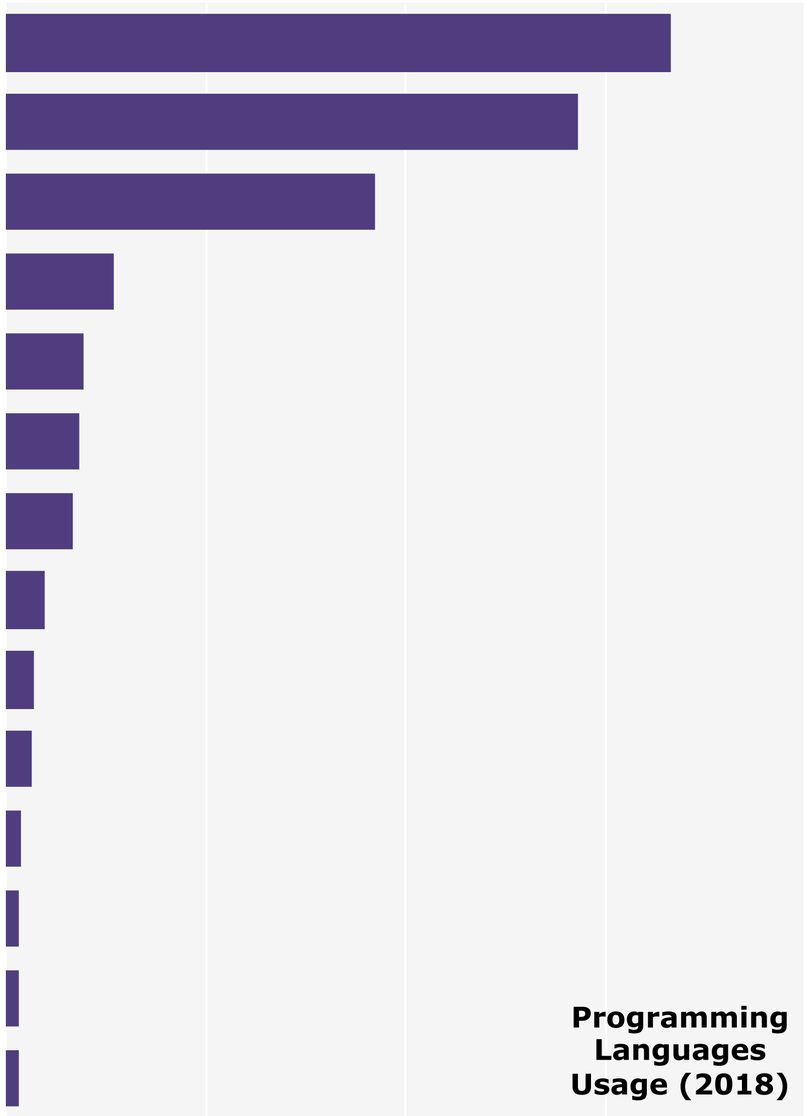
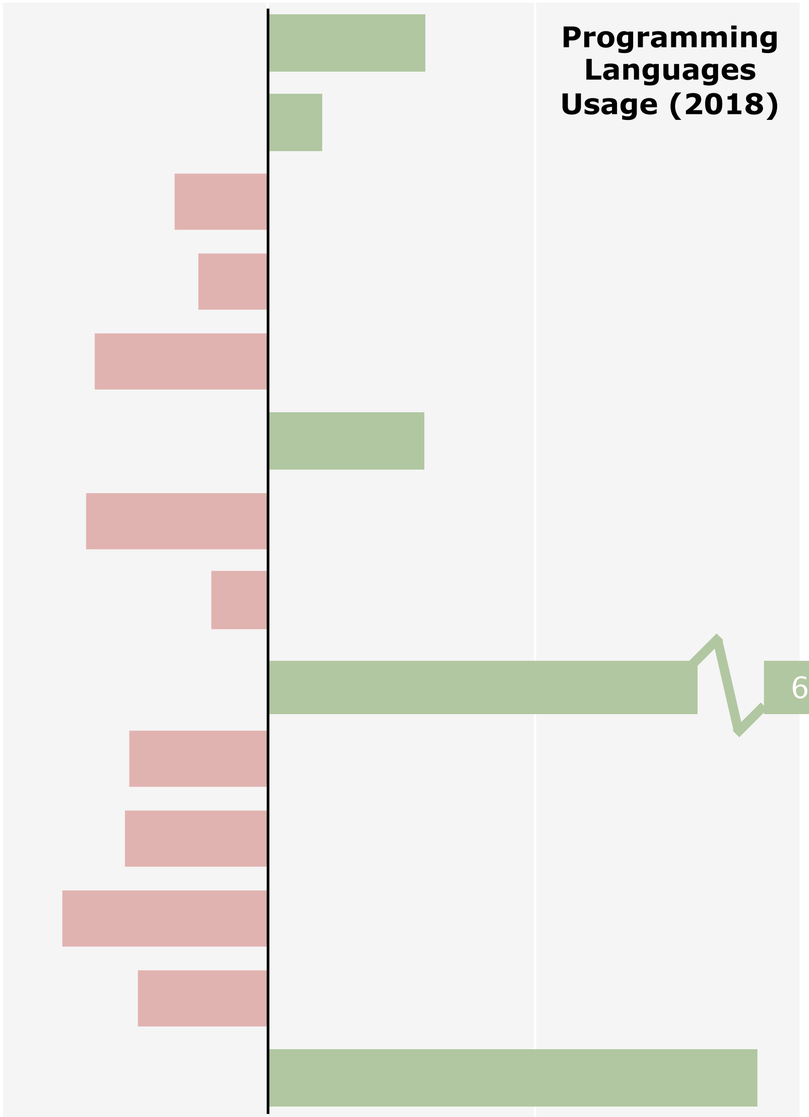
Javascript	3
C++	4
C#	5
Go	6
Scala	7
C	8
Kotlin	9
Swift	10
Perl	11
Ruby	12
PHP	13
Rust	14





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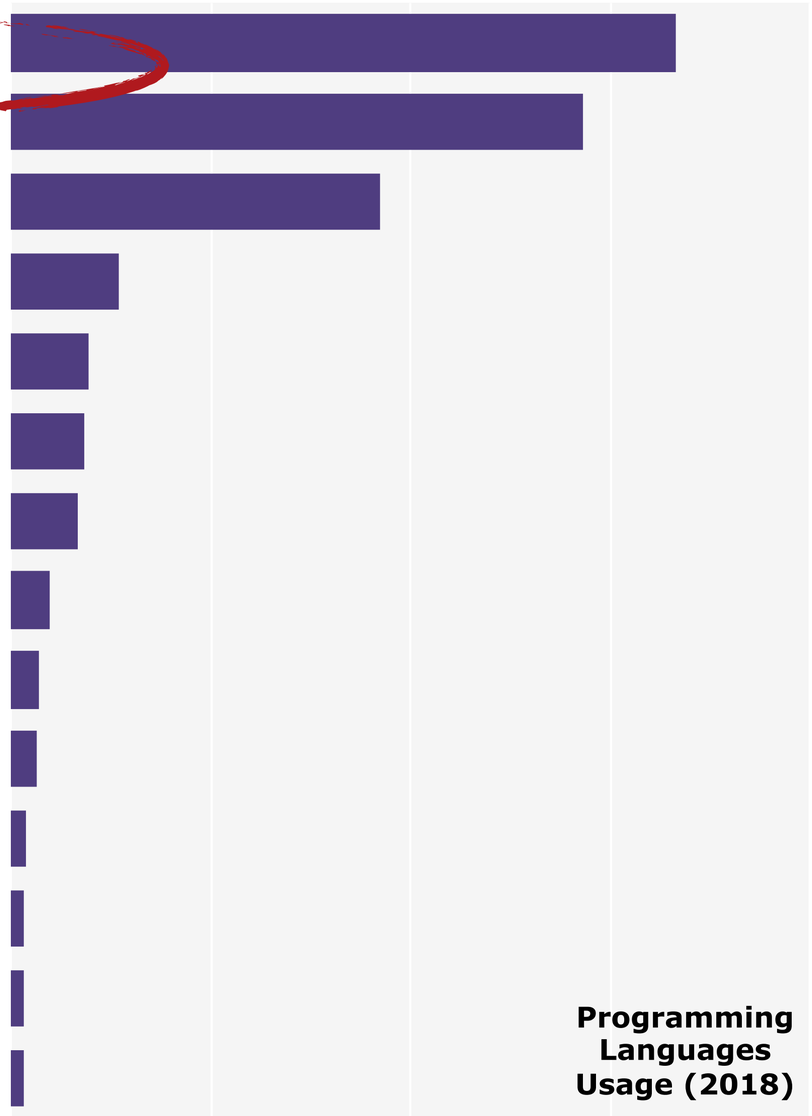

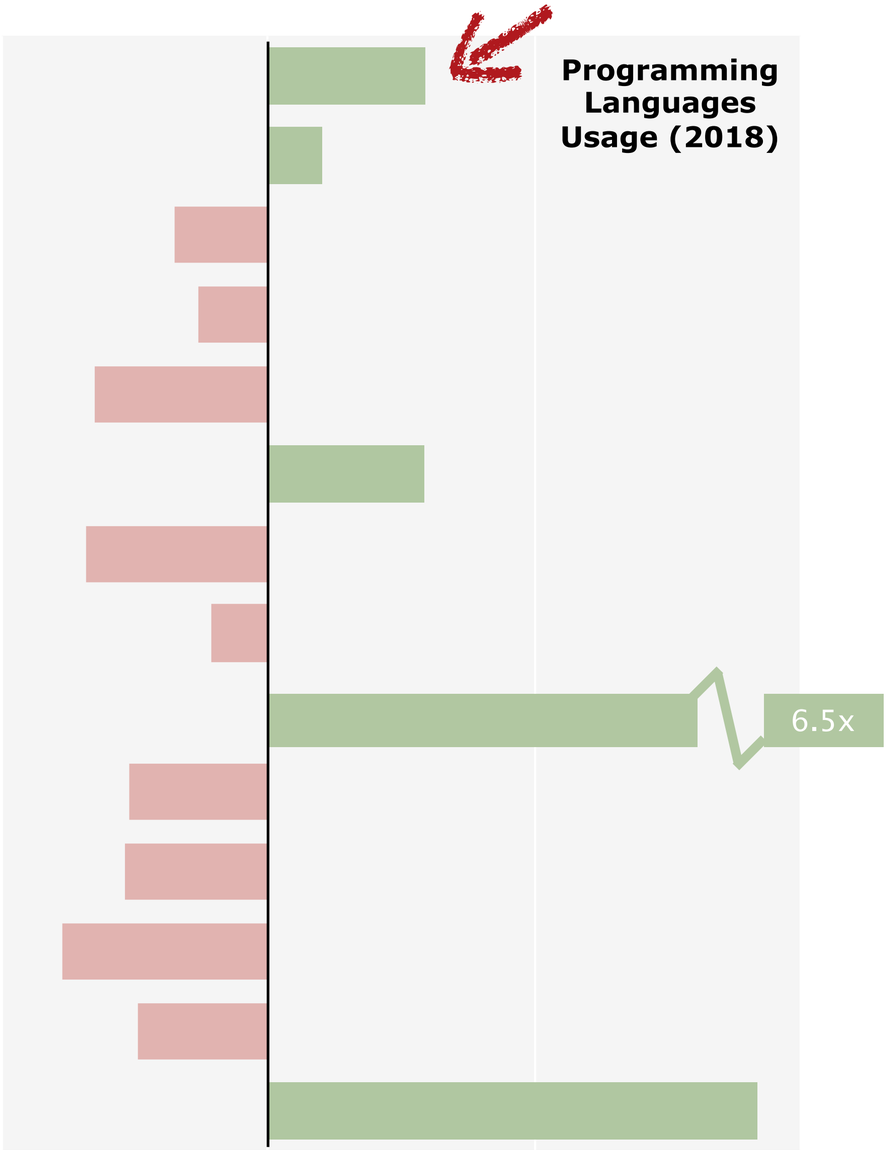

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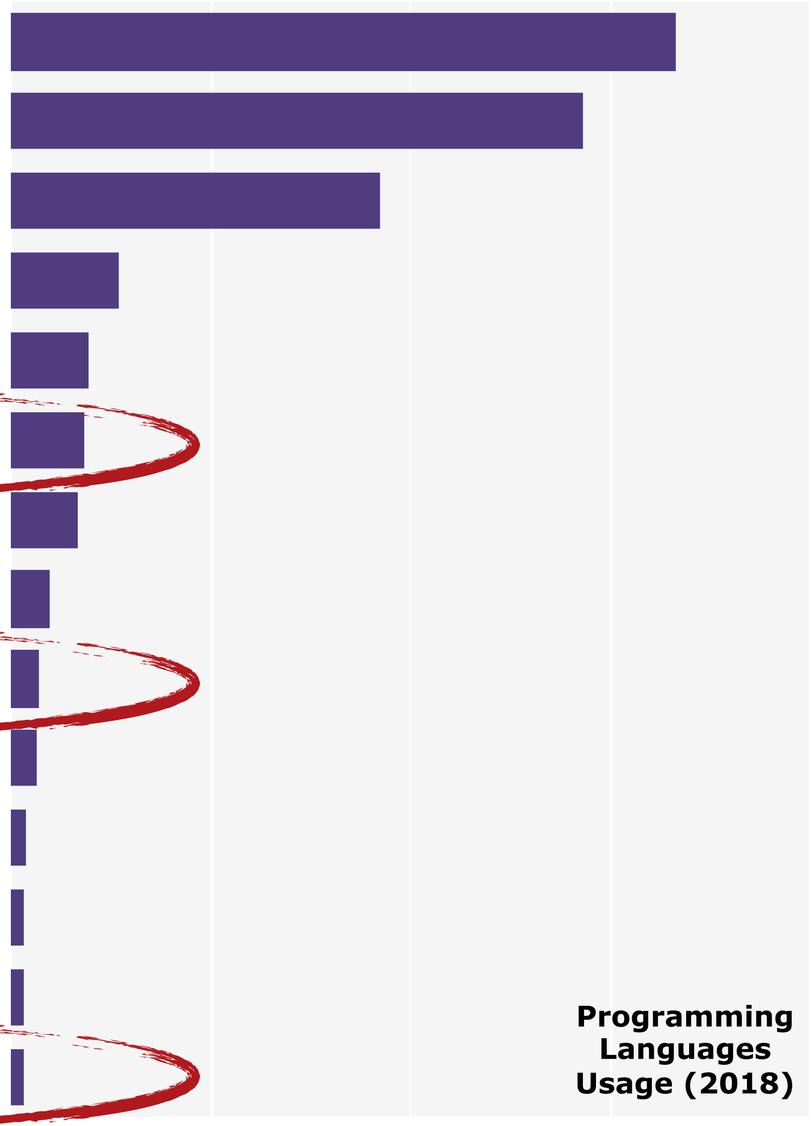

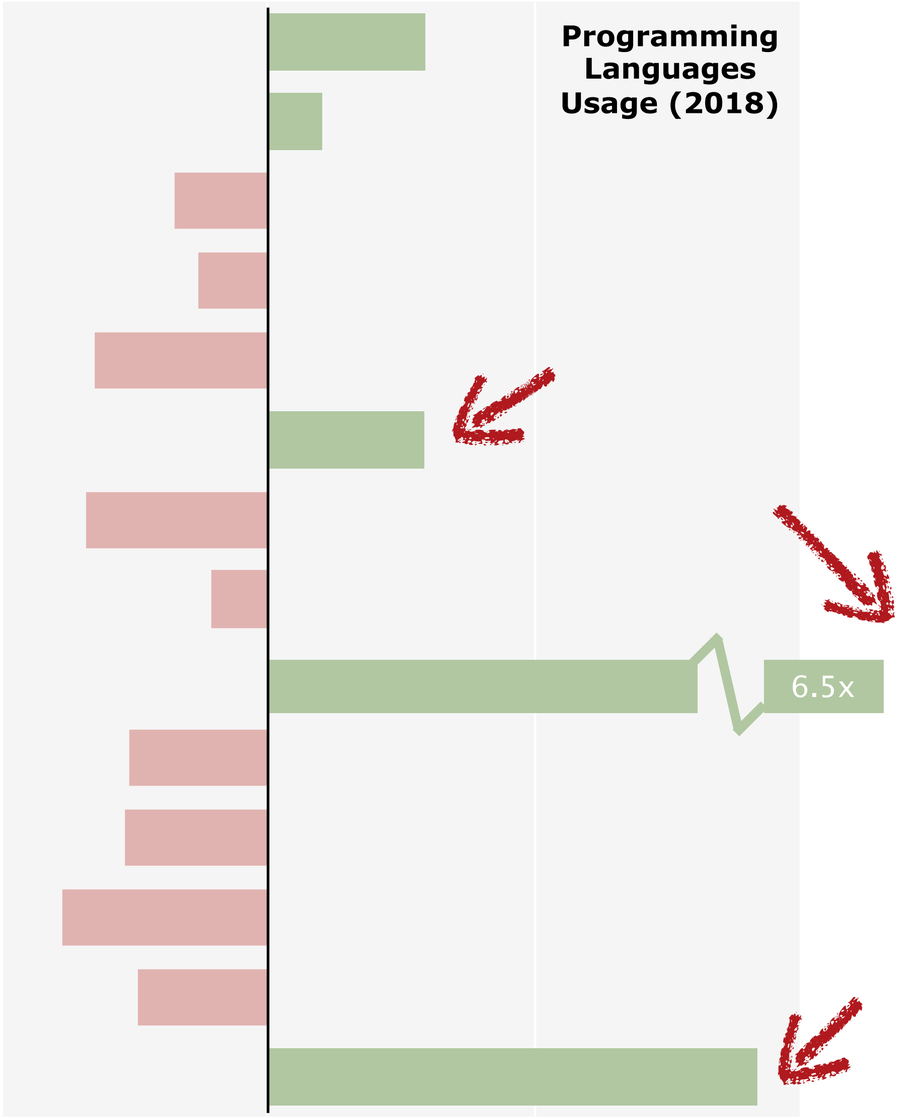

Emerging

- Kubernetes
  - Up nearly 200%

- Blockchain
  - Up over 450%

Trends / Summary

- Open Source
- Languages
- ML/AI a major topic
- Cloud

- Kubernetes well up
  - Microservices / Next Architecture Hypothesis
- Blockchain

Questions? Comments?

- roger@oreilly.com