ISED CASE STUDY
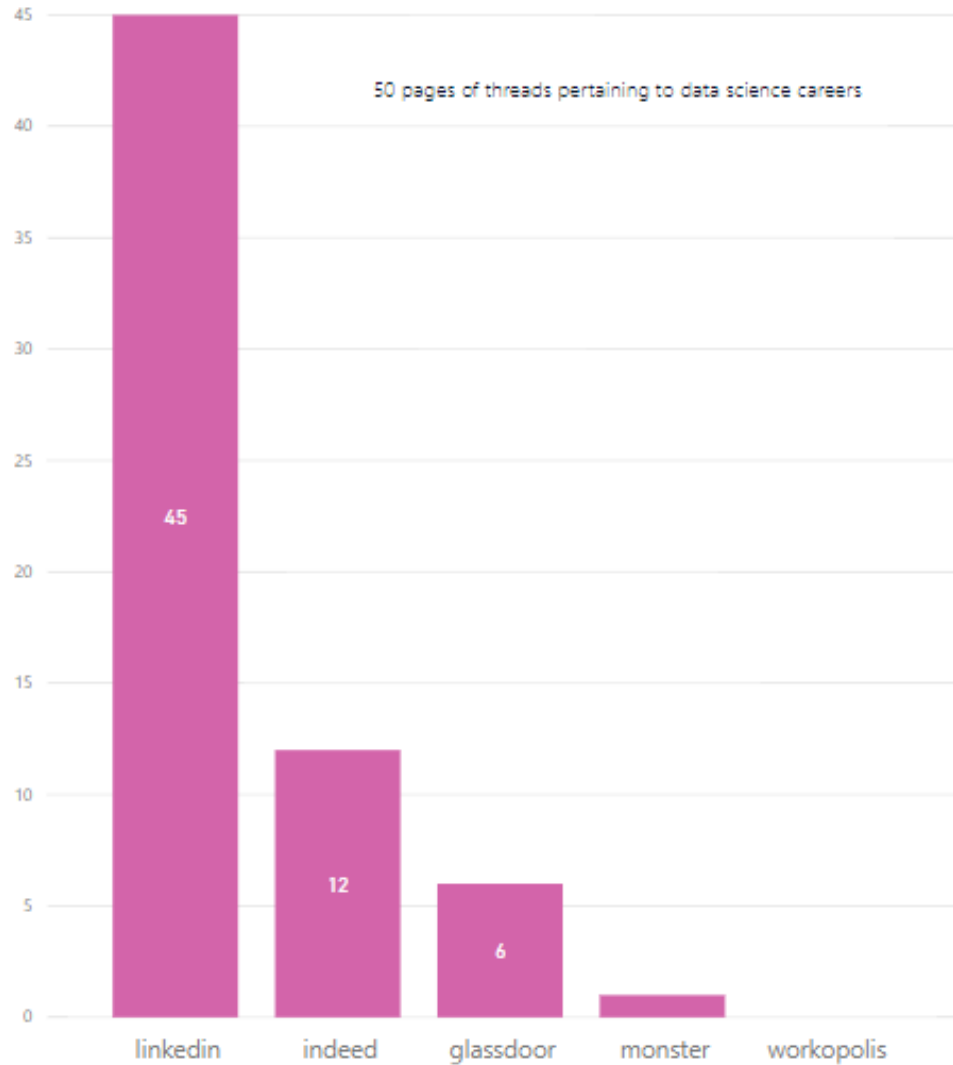
TEAM 5:
Maia Pelletier, Andrew Nagarajah, Somebi Eleh, and Jonathan Boerger
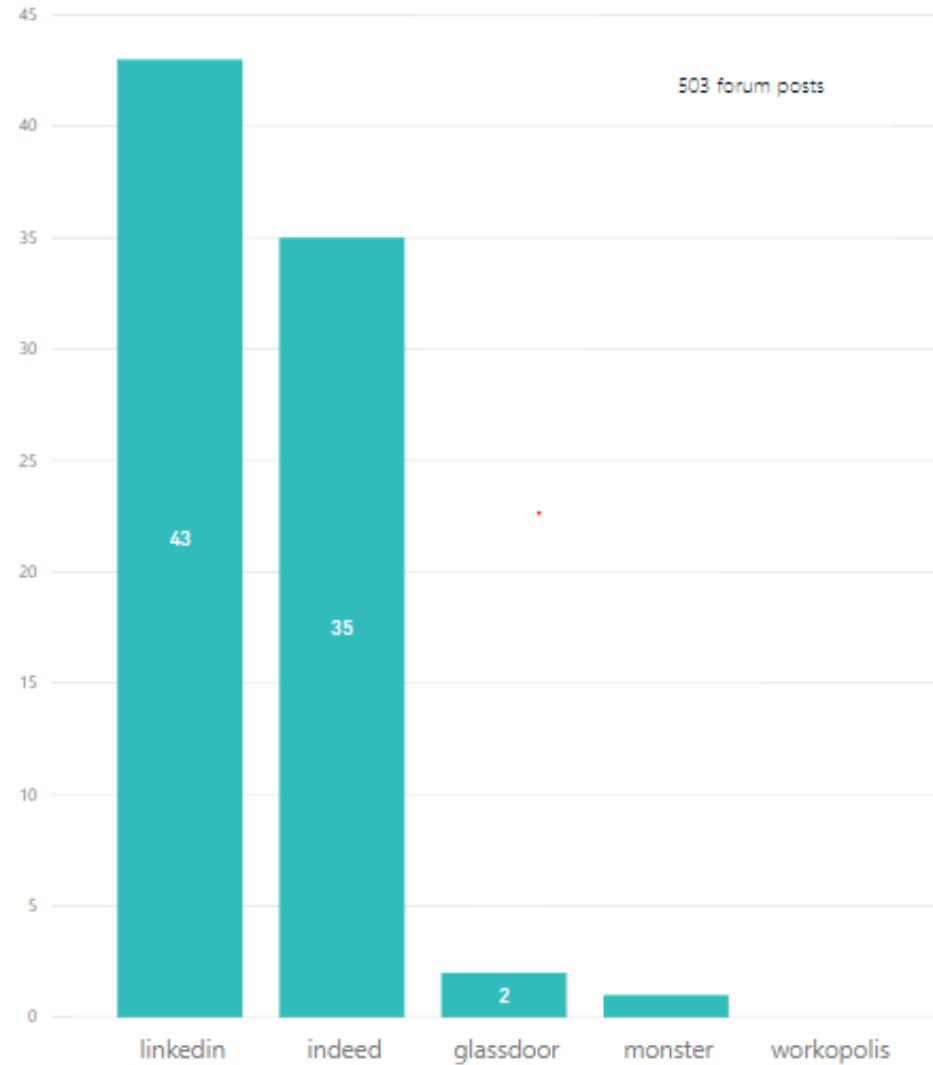
Where are you?

Social media mentions on r/datascience

50 pages of threads pertaining to data science careers

Social media mentions on datasciencecentral
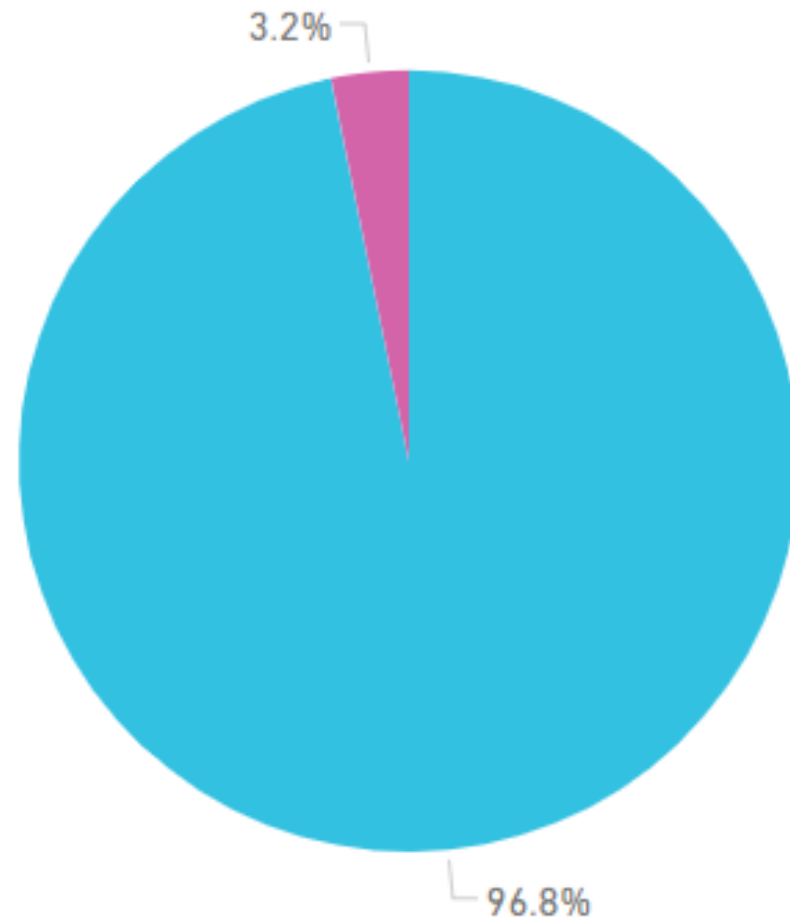
503 forum posts

/r/datascience:
A popular forum for people seeking information about data science

datasciencecentral:
A forum & blog for data science and big data

Private vs. Public job postings on Indeed

- private
- public

3.2%

96.8%

Data scraped from 1250 indeed job postings

notice concentration of private vs public

What are they looking for?[1]

Data representation:
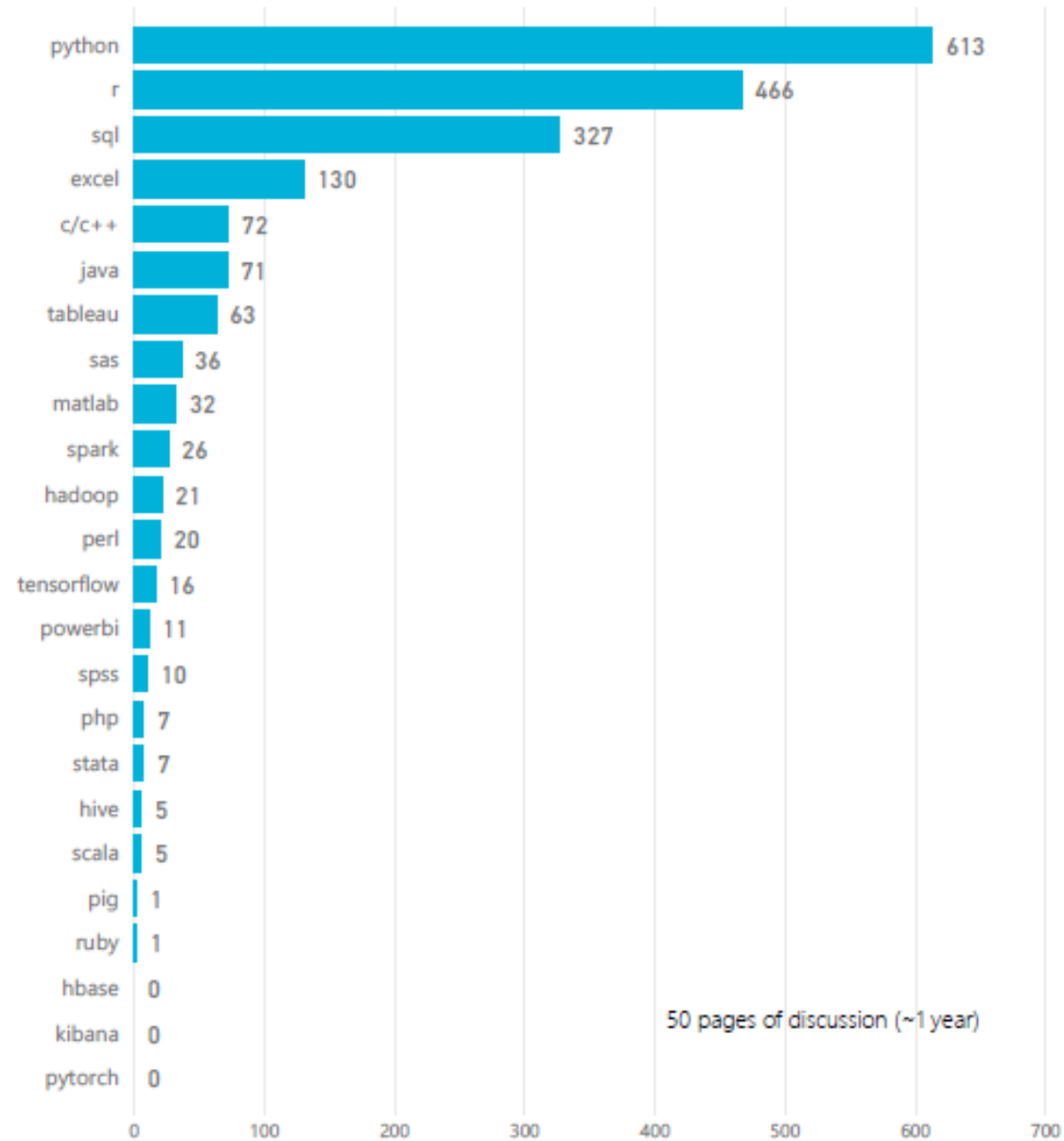Millennial | Gen Z

- Top prioritizes for millennials and Gen Z
  - **Pay and benefits** : 63% | 51%
  - Positive Workplace **Culture** : 52% | 57%
  - **Flexibility**: 50% | 44%
  - **Learning and development** opportunities: 48% |44%

- Millennials and Gen Z expect professional development and growth opportunities:
  - Expect robust on the **job training from employer**: 82% |75%
  - Expect opportunities for continuous **professional development & self directed learning**: 81% | 75%

[1] https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennial-survey-webcast-event-2018.html
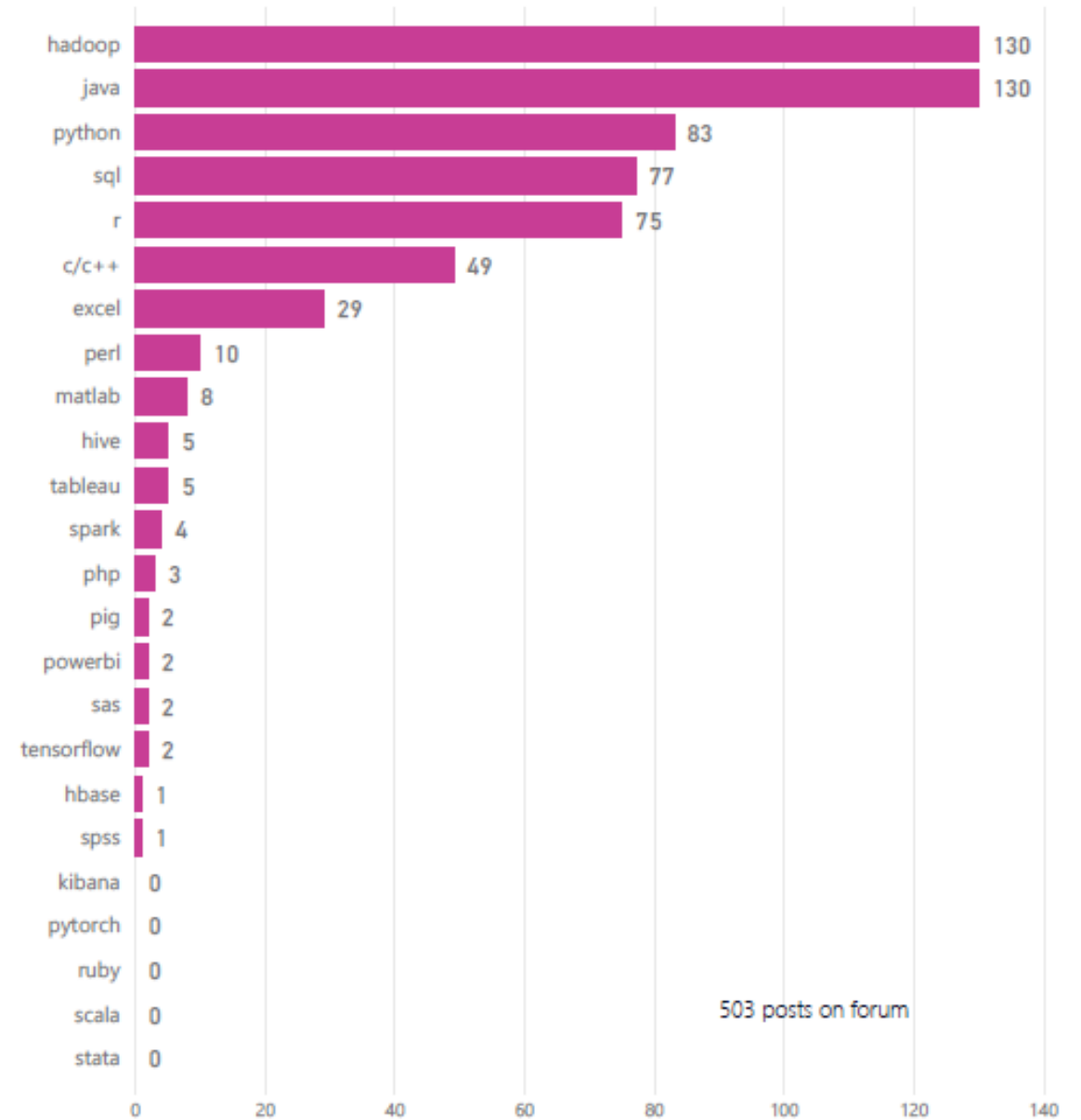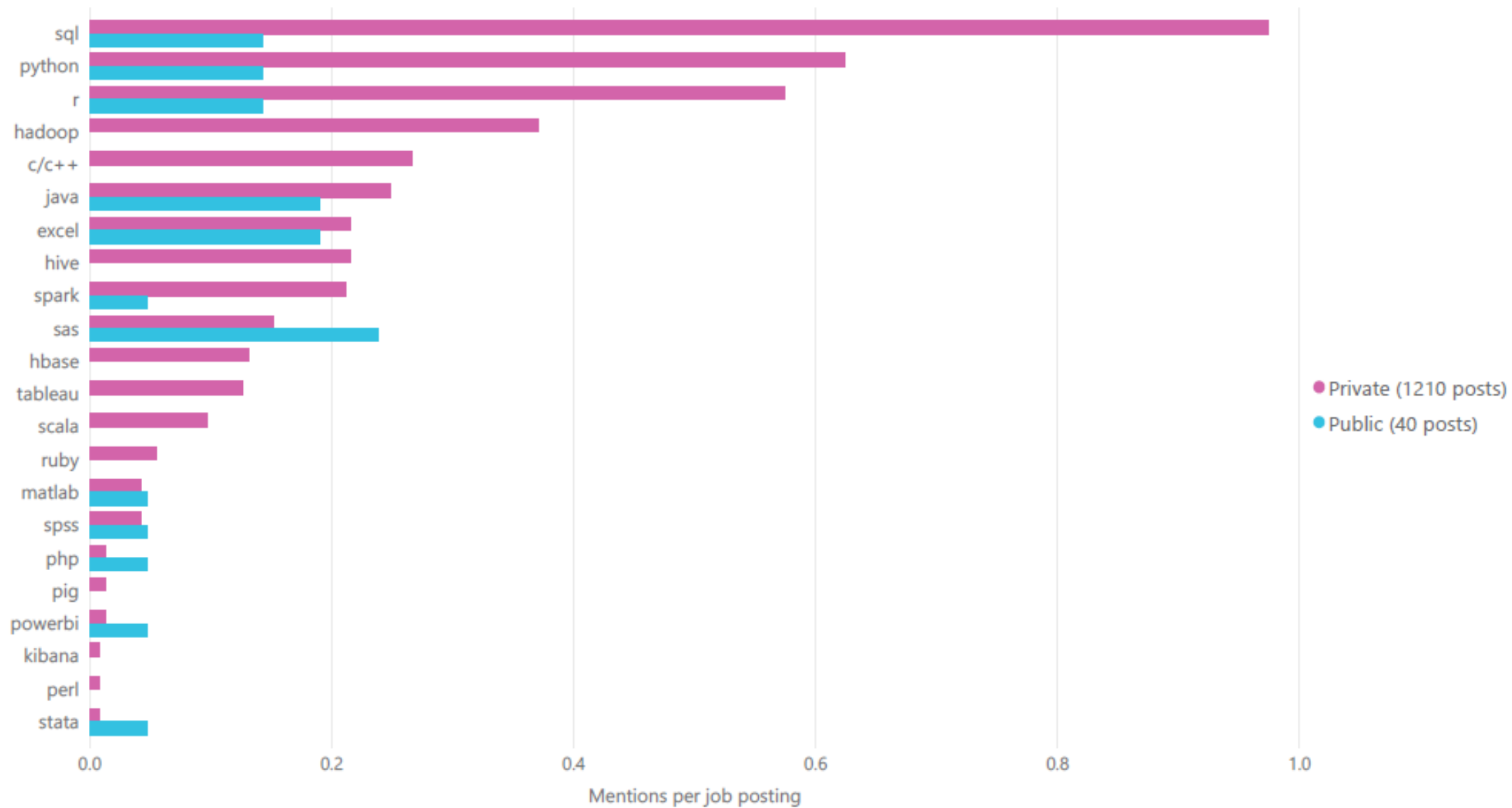
Why are *they* better?
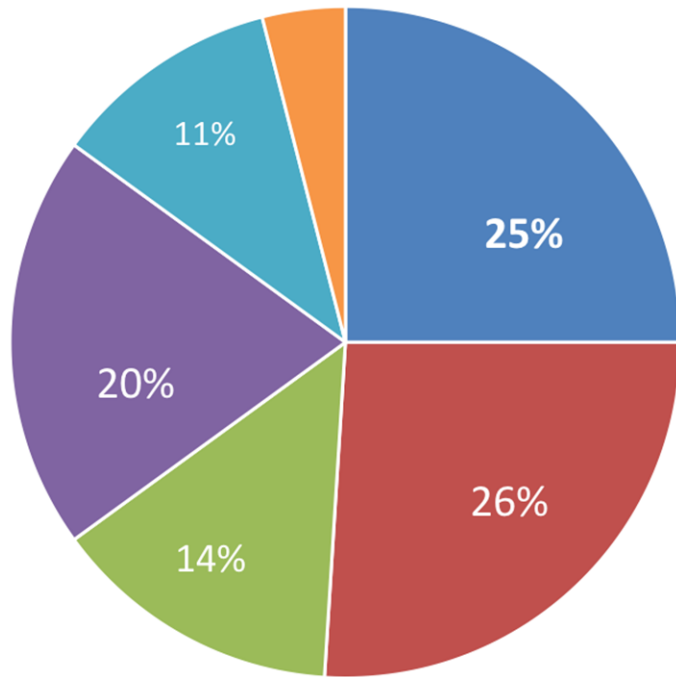
Mentions of language/tech on r/datascience

Language/Tech	Count
python	613
r	466
sql	327
excel	130
c/c++	72
java	71
tableau	63
sas	36
matlab	32
spark	26
hadoop	21
perl	20
tensorflow	16
powerbi	11
spss	10
php	7
stata	7
hive	5
scala	5
pig	1
ruby	1
hbase	0
kibana	0
pytorch	0

50 pages of discussion (~1 year)

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Language/Tech	Count
hadoop	130
java	130
python	83
sql	77
r	75
c/c++	49
excel	29
perl	10
matlab	8
hive	5
tableau	5
spark	4
php	3
pig	2
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503 posts on forum

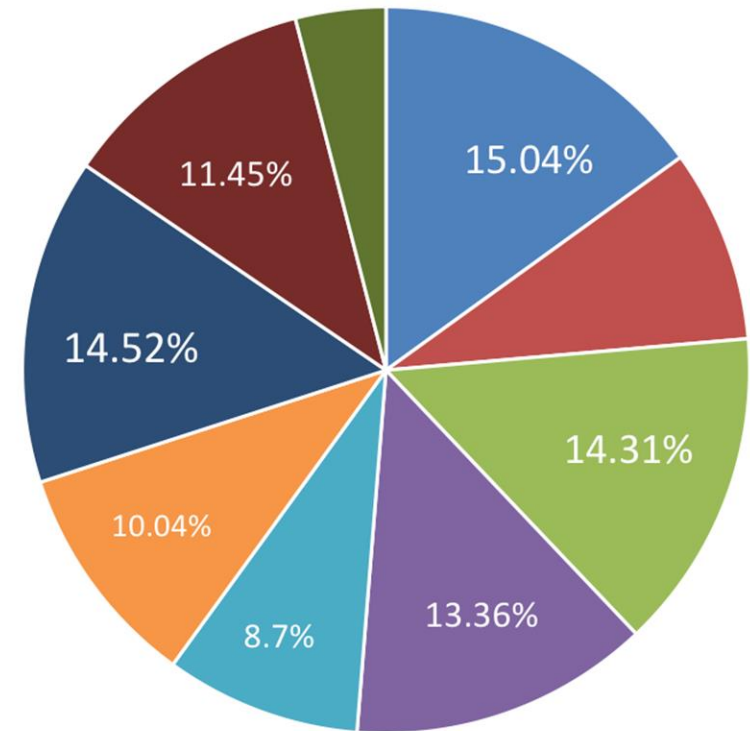Private vs. Public: Technology mentions per job posting

Glassdoor - Student stats

- Relaxed environment
- Flexible work hours
- Good pay
- Slow work
- Long bureaucratic procedures
- Hard to become permanent

25% / 26% / 14% / 20% / 11%

Exit interview

- Under 25
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55 and over
- I prefer not to say

15.04% / 14.31% / 13.36% / 8.7% / 10.04% / 14.52% / 11.45%

Government jobs in Ontario make up 20% of jobs

↓

12.8% are people under 25 = 2.56% total

Students

Young graduates

Relaxed & flexible

Good pay with little-no experience

Long bureaucratic processes

Slow and stagnant

Looking for something more fast paced

Personal growth and ambition is prioritized

Higher pay- short term monetary growth

Most people exiting (15%) are under 25 – they're also the least employed

↓

47% left after a year

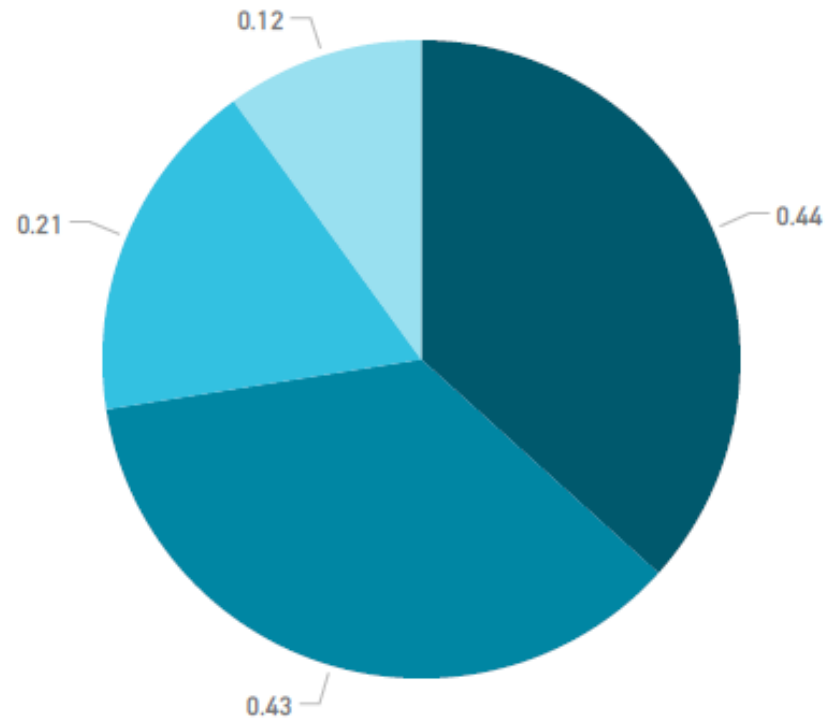↓   ↓

No incentive to stay?
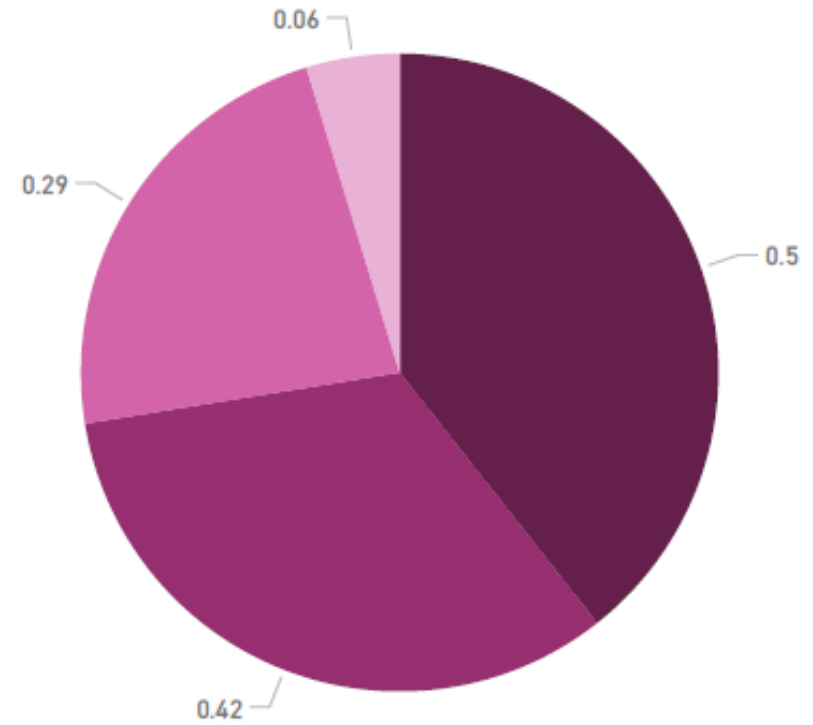
Hard to become permanent?

↓

Why are *we* better?

Pros of working at Government of Canada

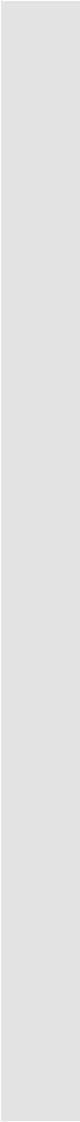● Benefits & pension ● Flexibility ● Security ● Good salary

0.12
0.44
0.21
0.43

Cons of working at Government of Canada

● Monotomous ● Senior management ● Slow to modernize ● Poor salary

0.06
0.29
0.5
0.42

# Dynamic Work Environment: Keeping things interesting

- ICED has a broad mandate -> **various roles** in **multiple environments** even within the same employment category

- You can change your drastically **change your job description** with out ever changing employer (or department)

- Keeps employees **engaged** by providing **variety**

- Enables public servants to pursue new and exciting **opportunities**, **challenges** and **advancement**
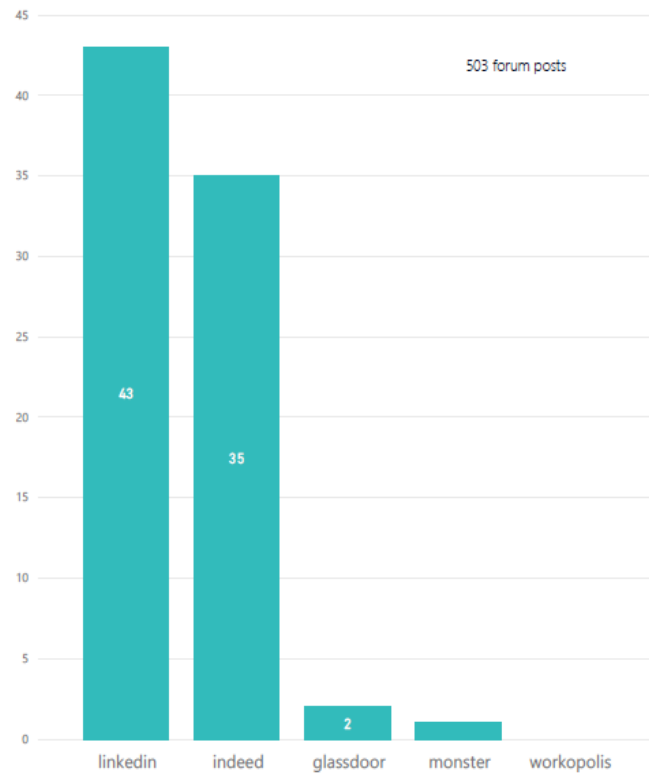
What do we need to do?

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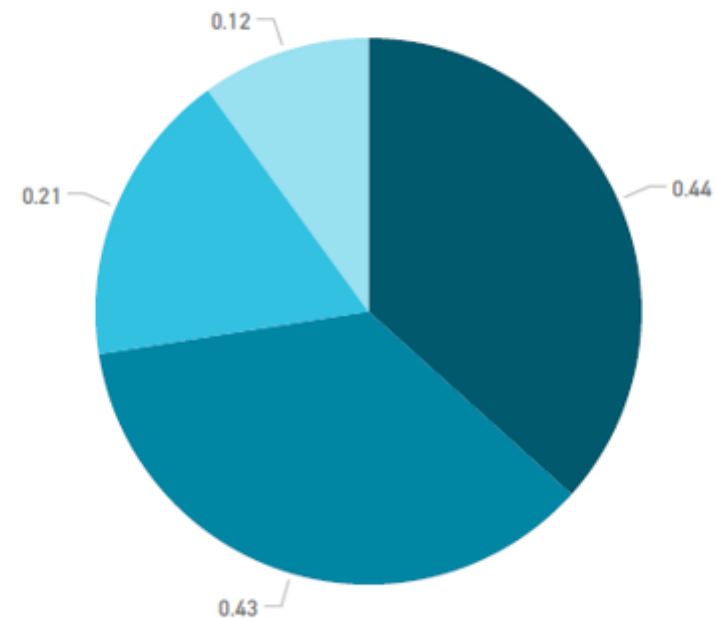50 pages of threads pertaining to data science careers
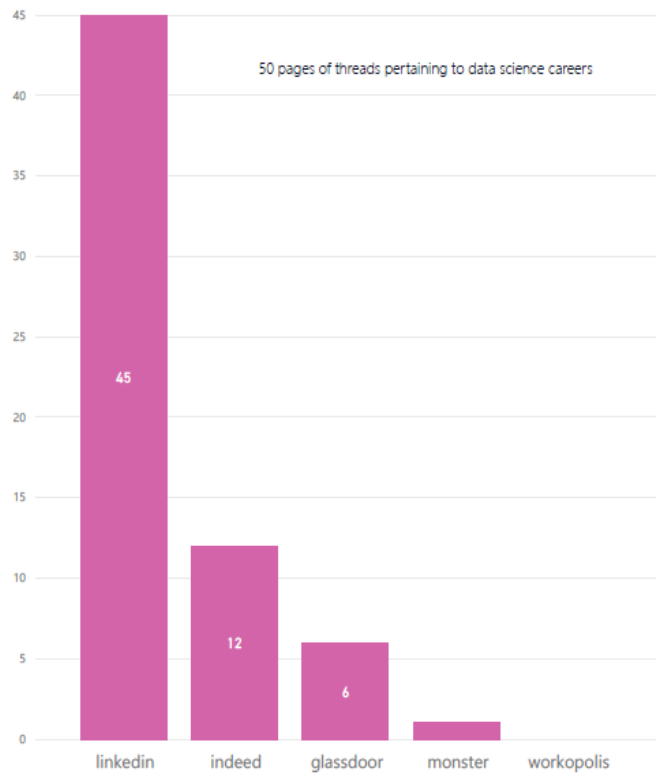
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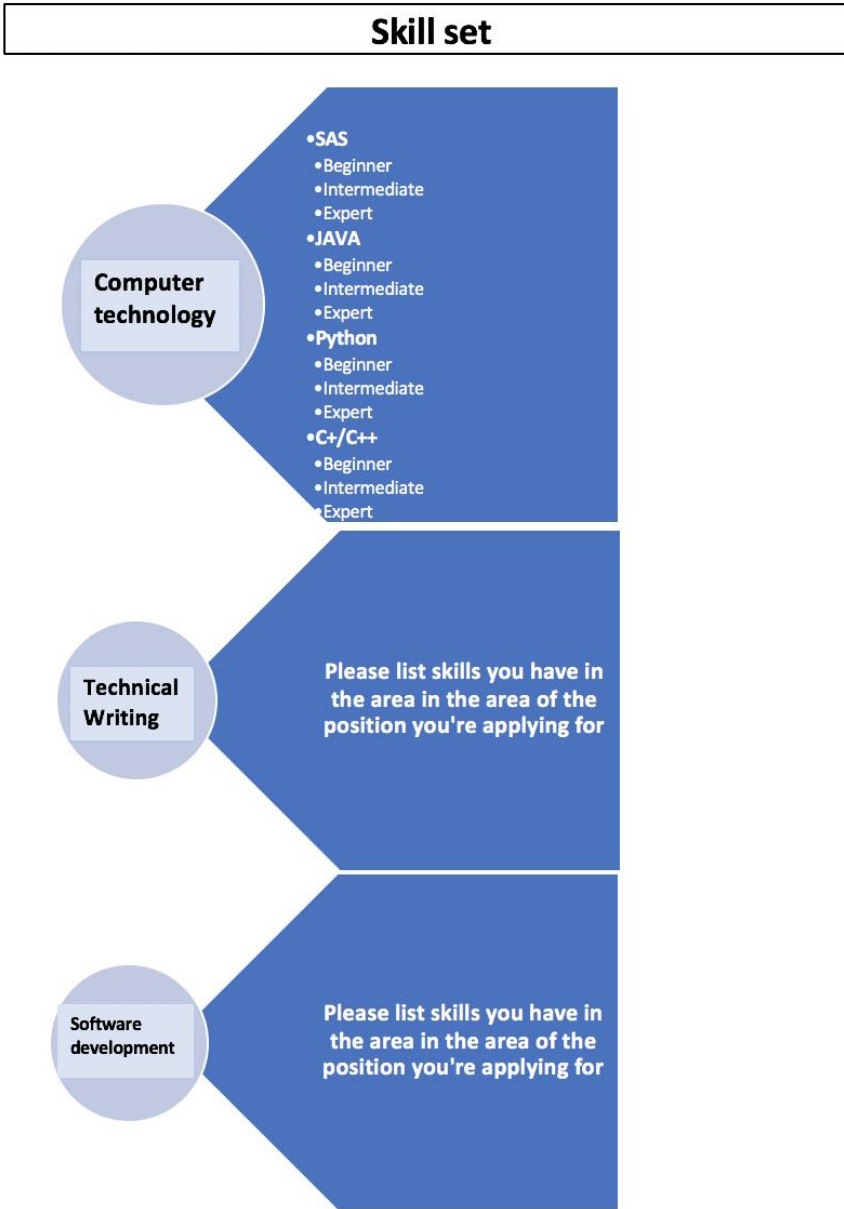
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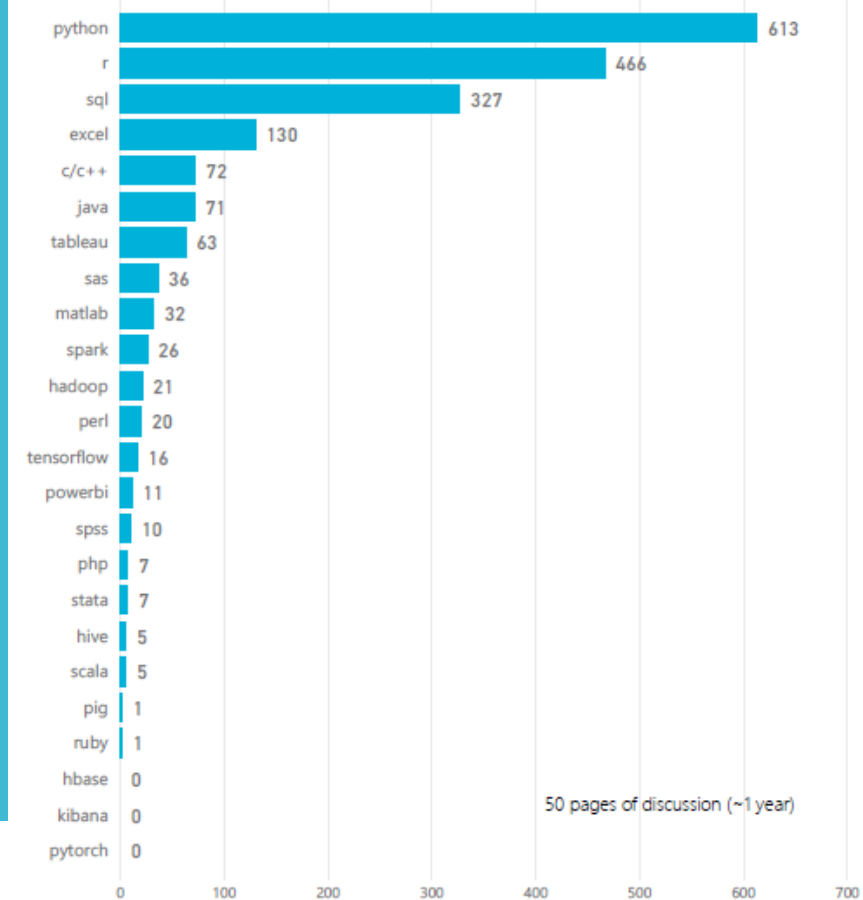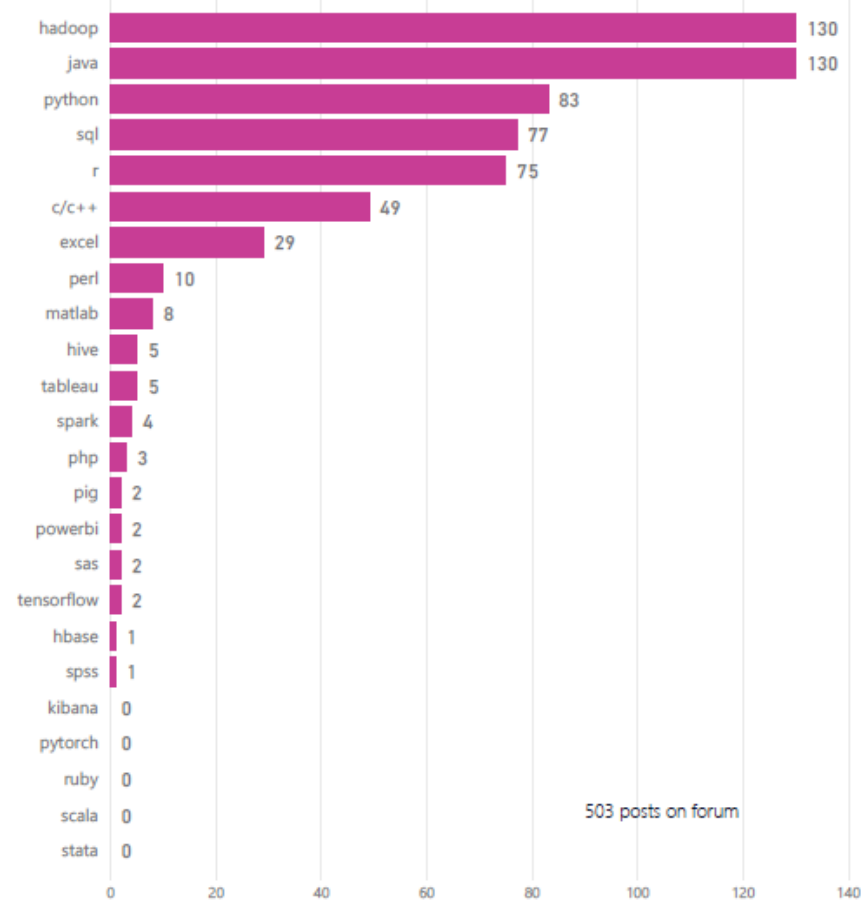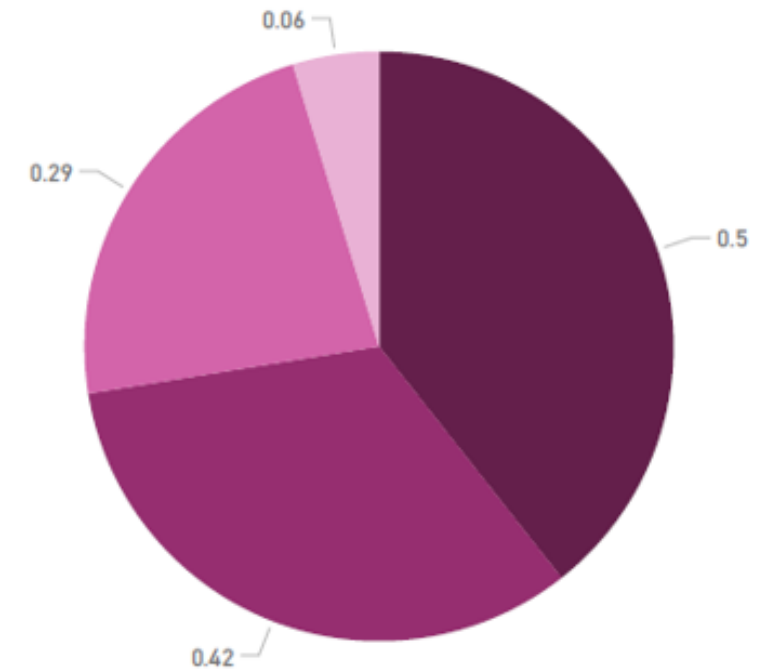
Mindset Change: Market yourself to Canadians

- What you asked at the beginning:

  Why are there not 5000 Canadians apply for this job.

- What you should be asking:

  Why **should** 5000 Canadians apply for this job?

  - What makes ICED/Public Service a great place to work?

    Many things, but Canadians **need to told**

Help up help you!

Make resume building easier for young adults!

Screening process

Skill set

Computer technology
- SAS
  - Beginner
  - Intermediate
  - Expert
- JAVA
  - Beginner
  - Intermediate
  - Expert
- Python
  - Beginner
  - Intermediate
  - Expert
- C+/C++
  - Beginner
  - Intermediate
  - Expert

Technical Writing

Please list skills you have in the area in the area of the position you're applying for

Software development

Please list skills you have in the area in the area of the position you're applying for

Thank you!