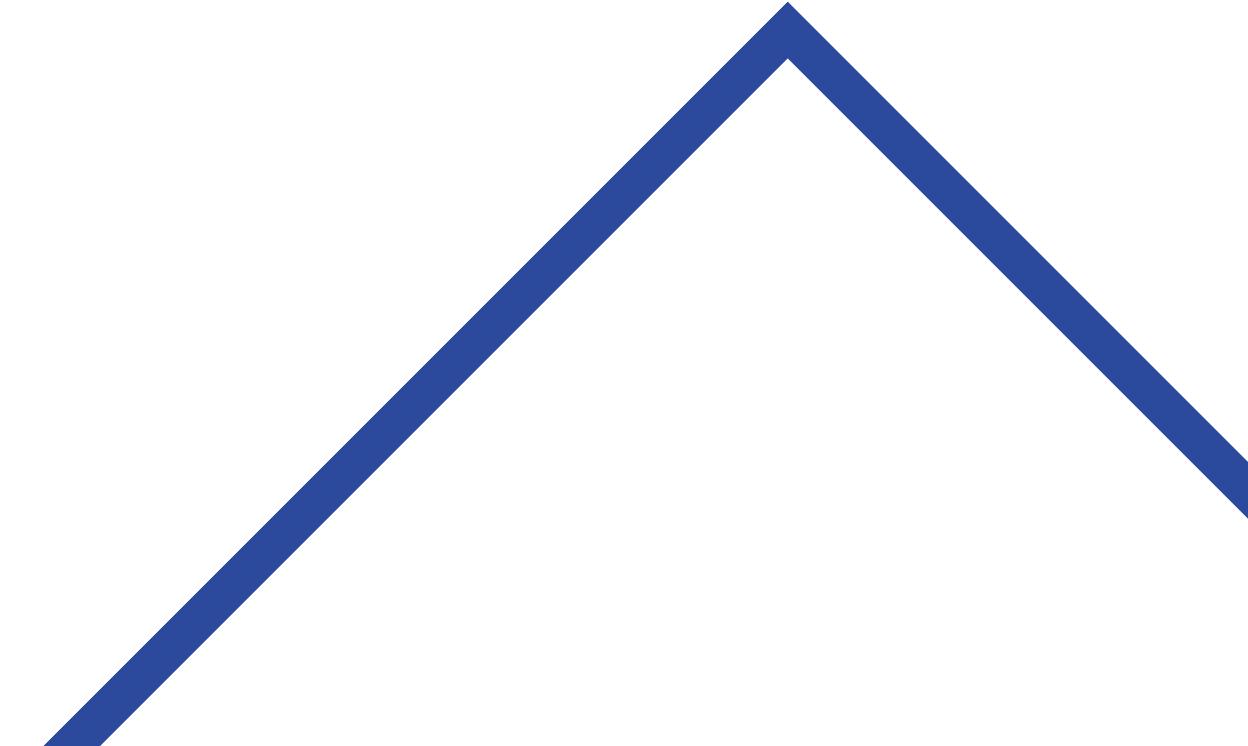


# **DATA MARKET IN BARCELONA**

**IF YOU WANT TO BECOME A DATA ANALYST**

*BY ALBERT COCA*



# Agenda

- Tools
- Method
- Category, Modality & Seniority
  - Global Analysis
  - By Category Analysis
- Programming and Visualization Tools
  - Global Analysis
  - By Category Analysis
- Hard Skills & Soft Skills
  - Global Analysis
  - By Category Analysis
- Recap...If you want to become a Data Analyst
- *\*Bonus Track: Top companies in need of talent*
- Next Steps

# Tools used:



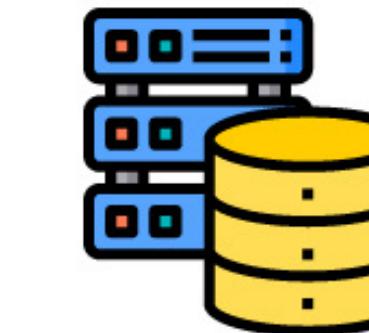
# Method



Webpages



Web Scraping



Structured data



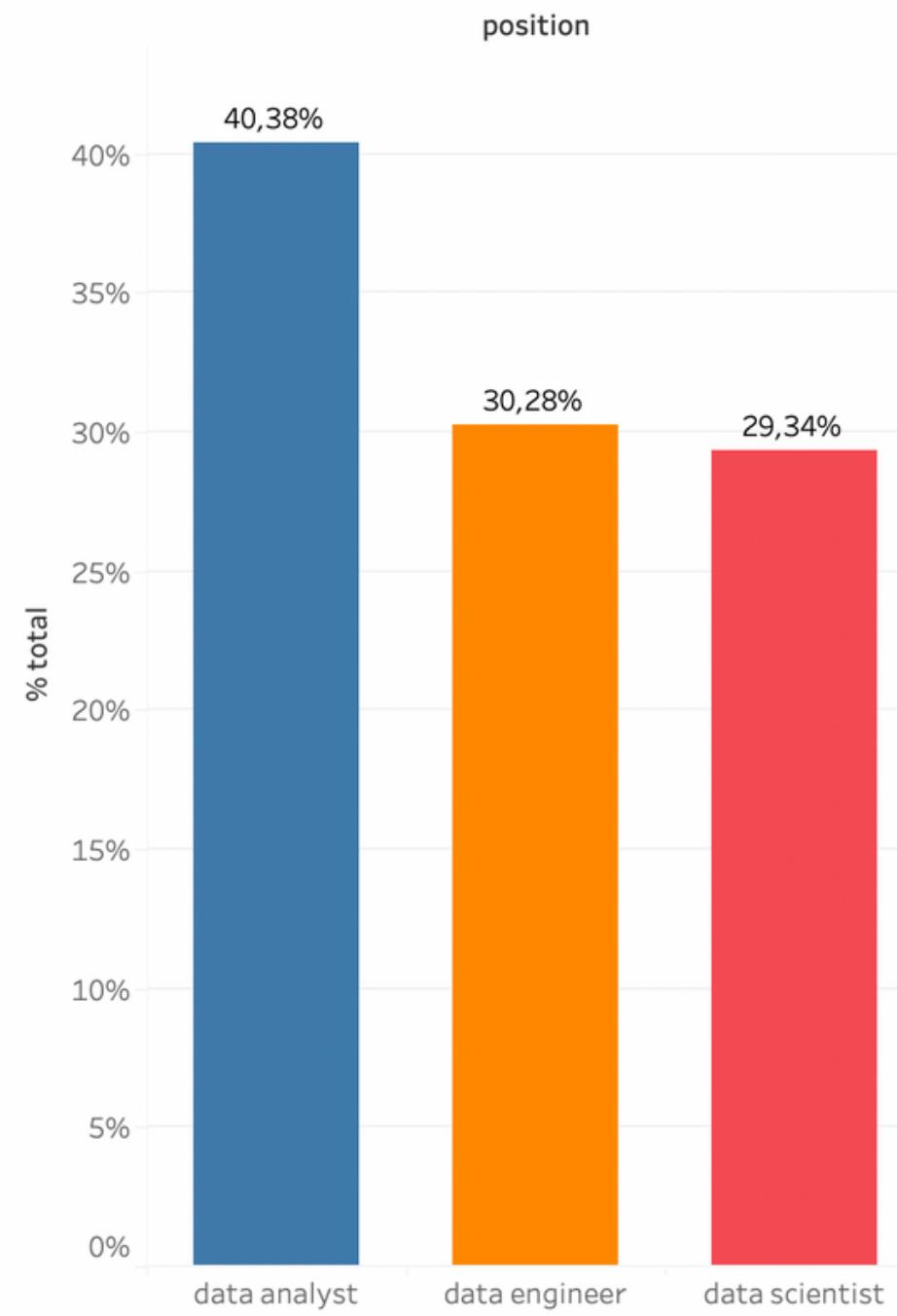
**316** jobs scraped from  
last 2 months in **Barcelona**

- HTML
- BeautifulSoup  
(python)
- Selenium  
(python)

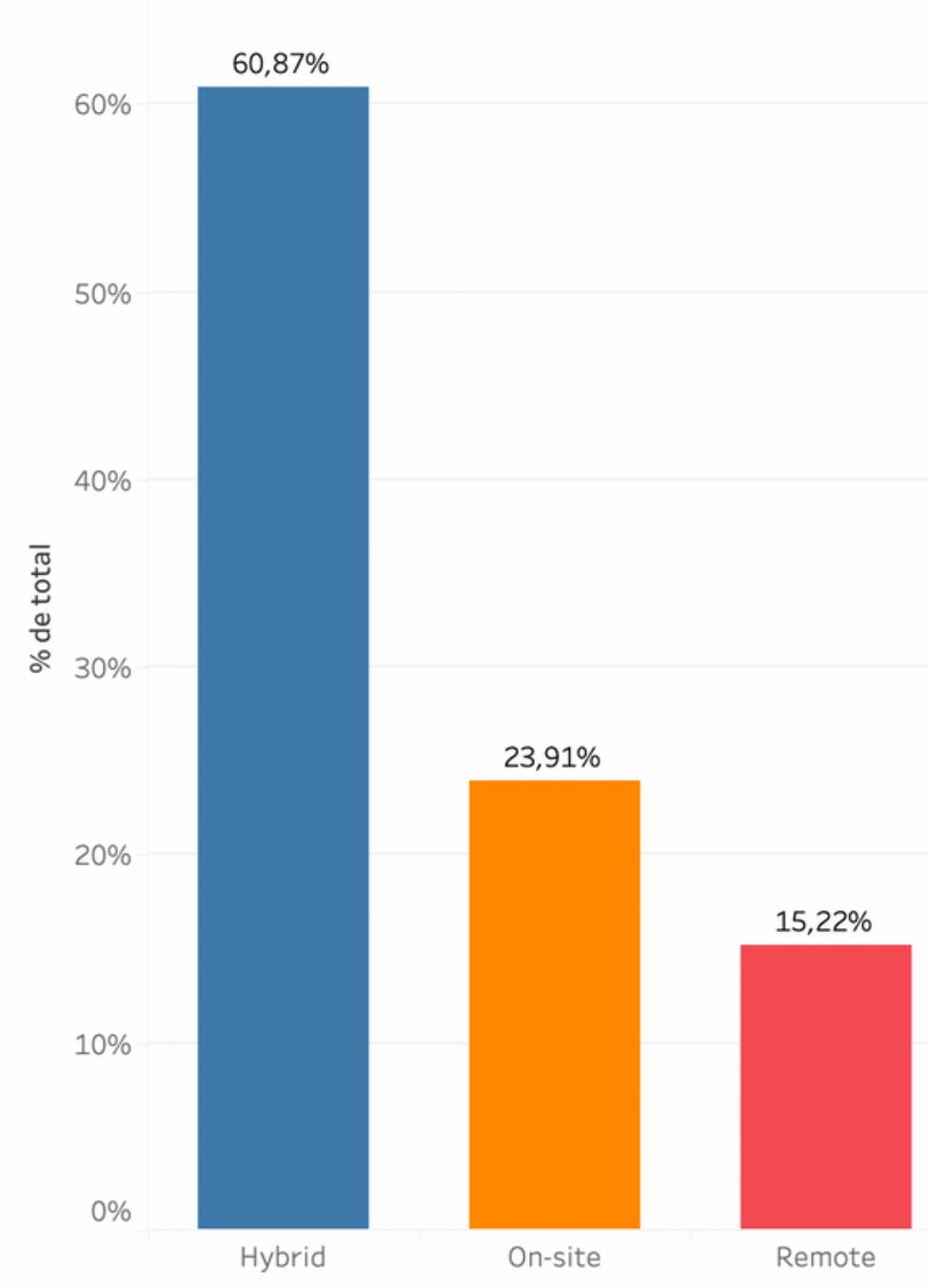
- Data Cleaning
  - Python
  - NLTK
- Extracted Data: Title, Company, Location, Modality & Description

# Global Analysis - Category, Modality & Seniority

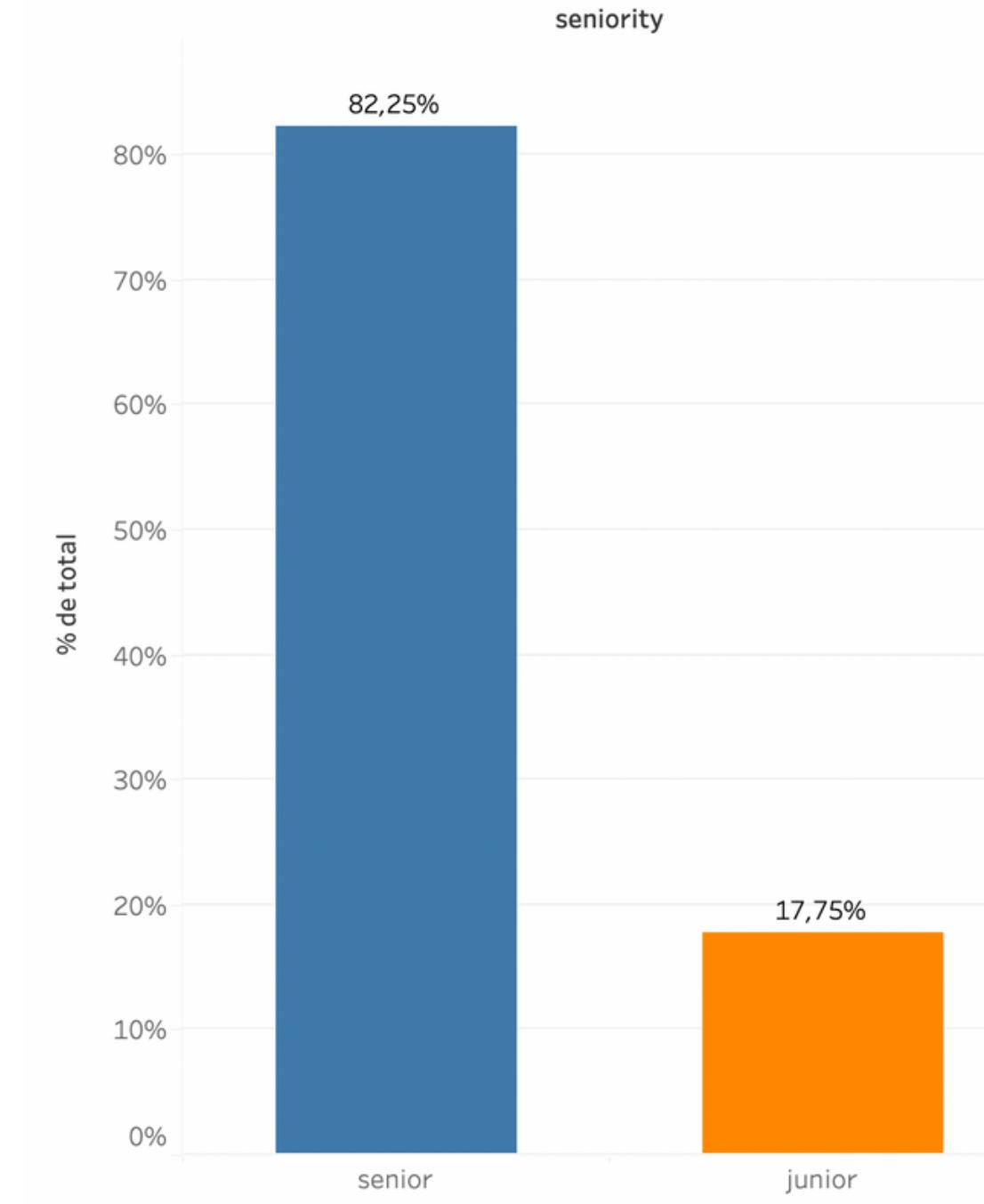
Global Category %



Global x Modality

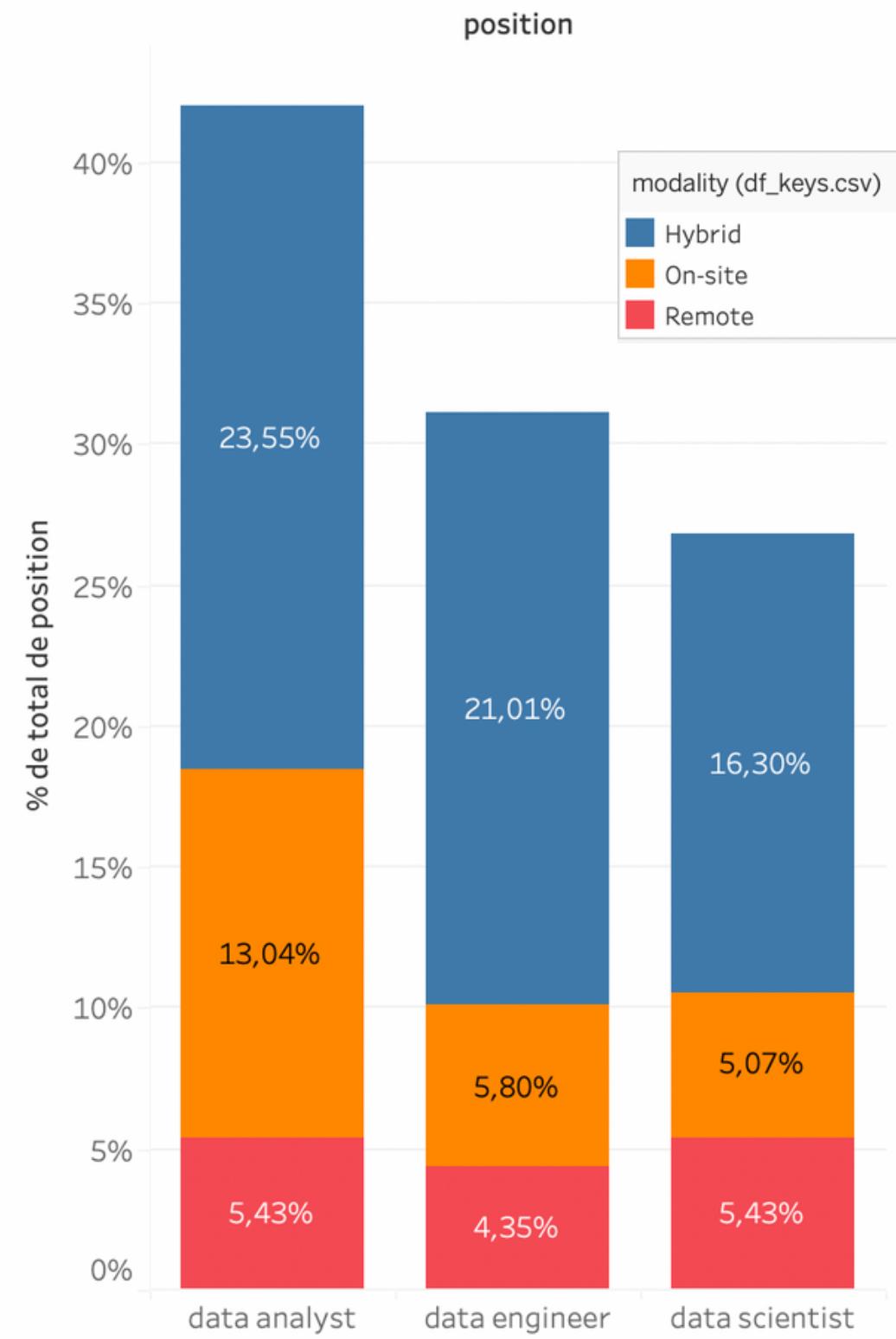


Global x Seniority

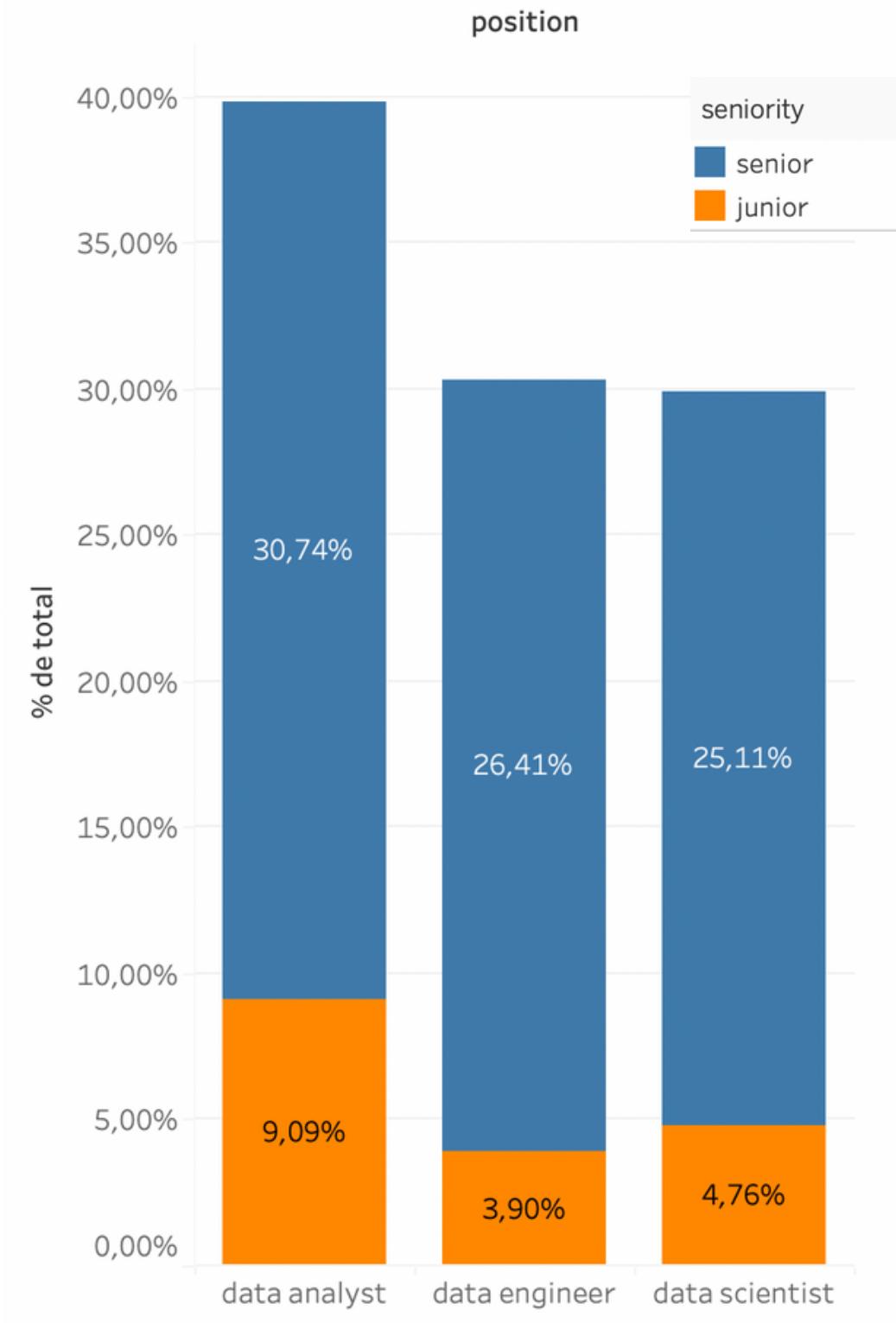


# Between Categories - Modality & Seniority

Modality x Category



Seniority x Category

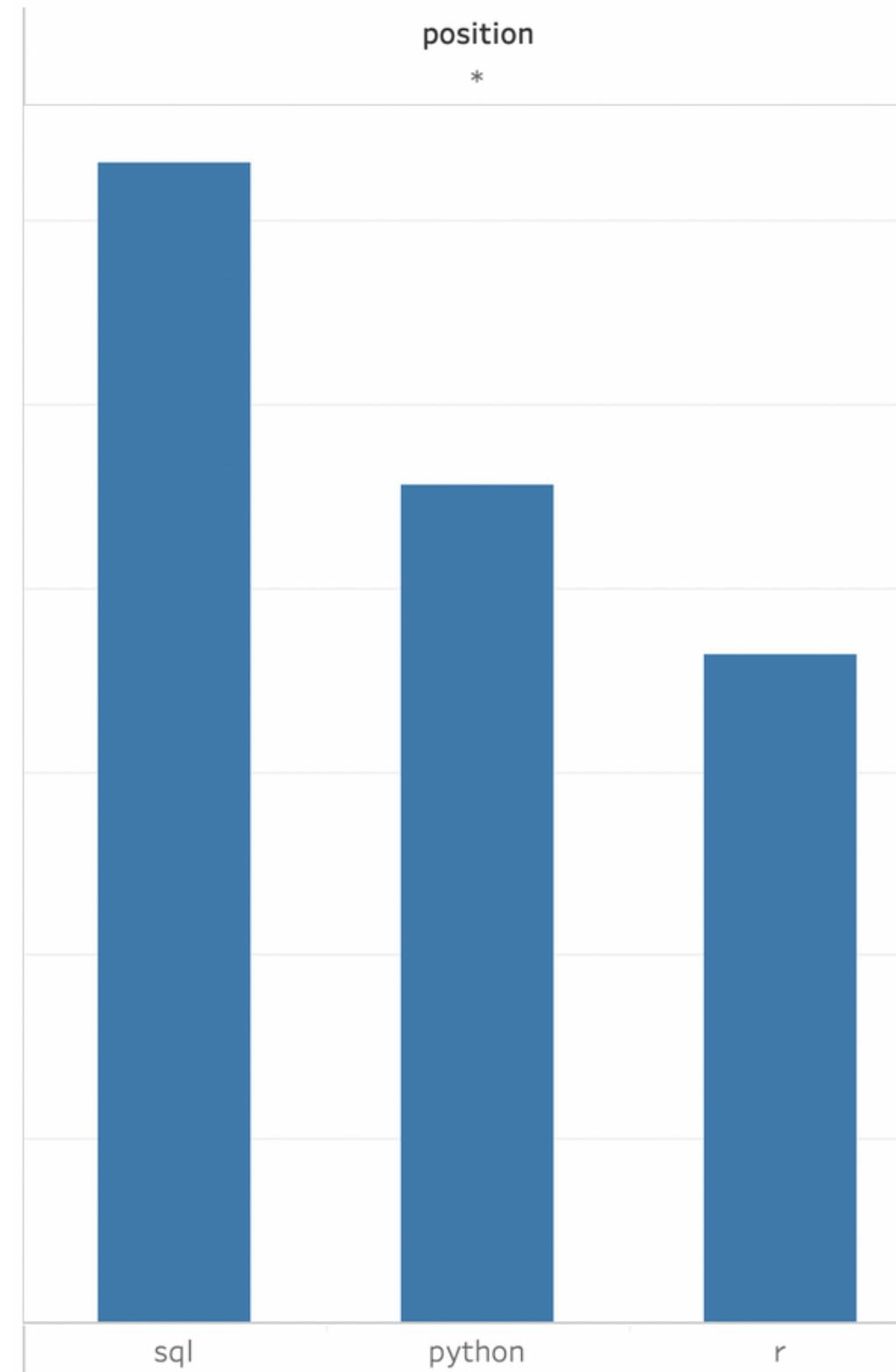


## Insights:

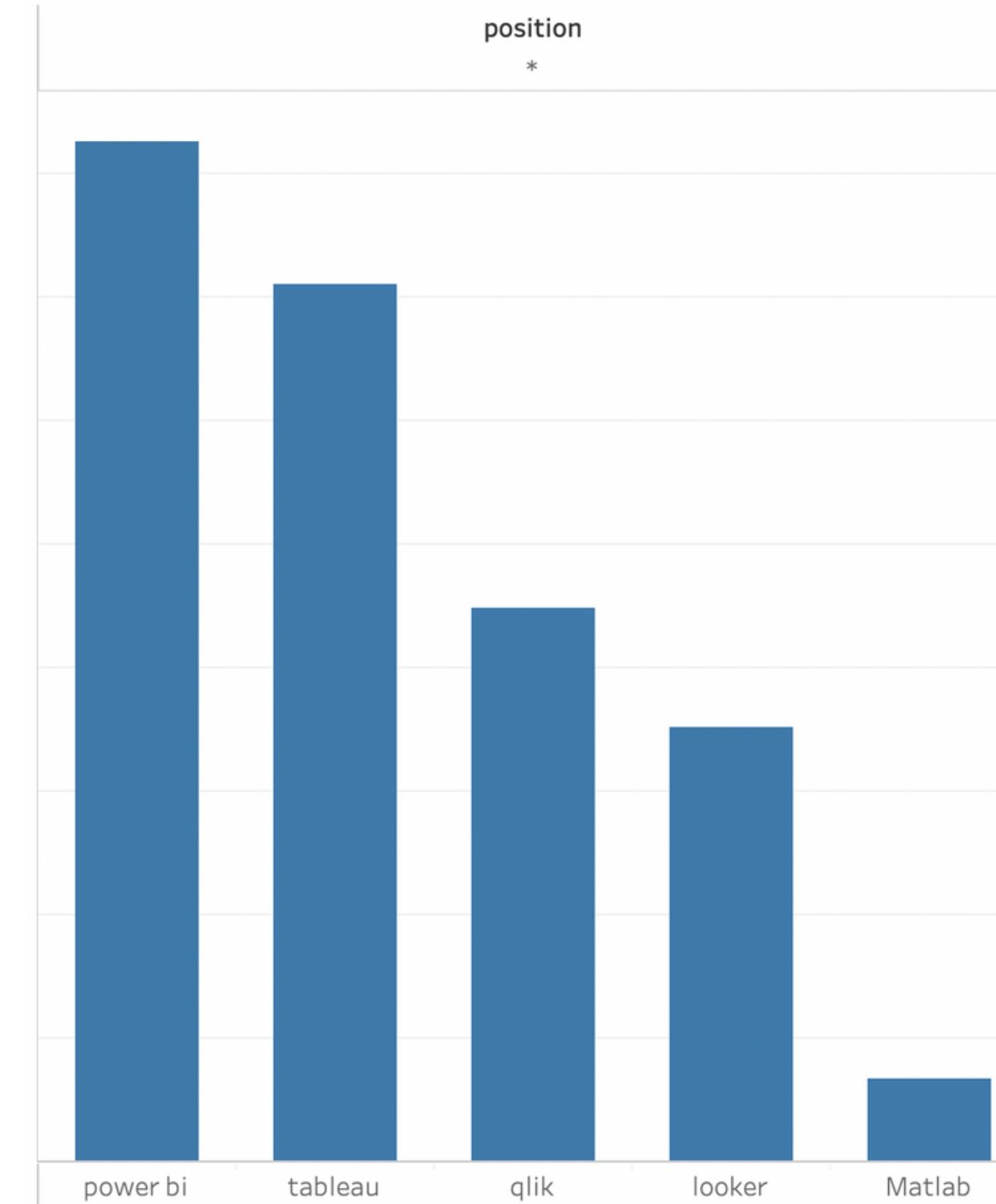
- More On-site positions on DA jobs
- A bit more junior positions on DA jobs

# Global Analysis - Programming and Visualization Tools

Programming Tools - Total Jobs

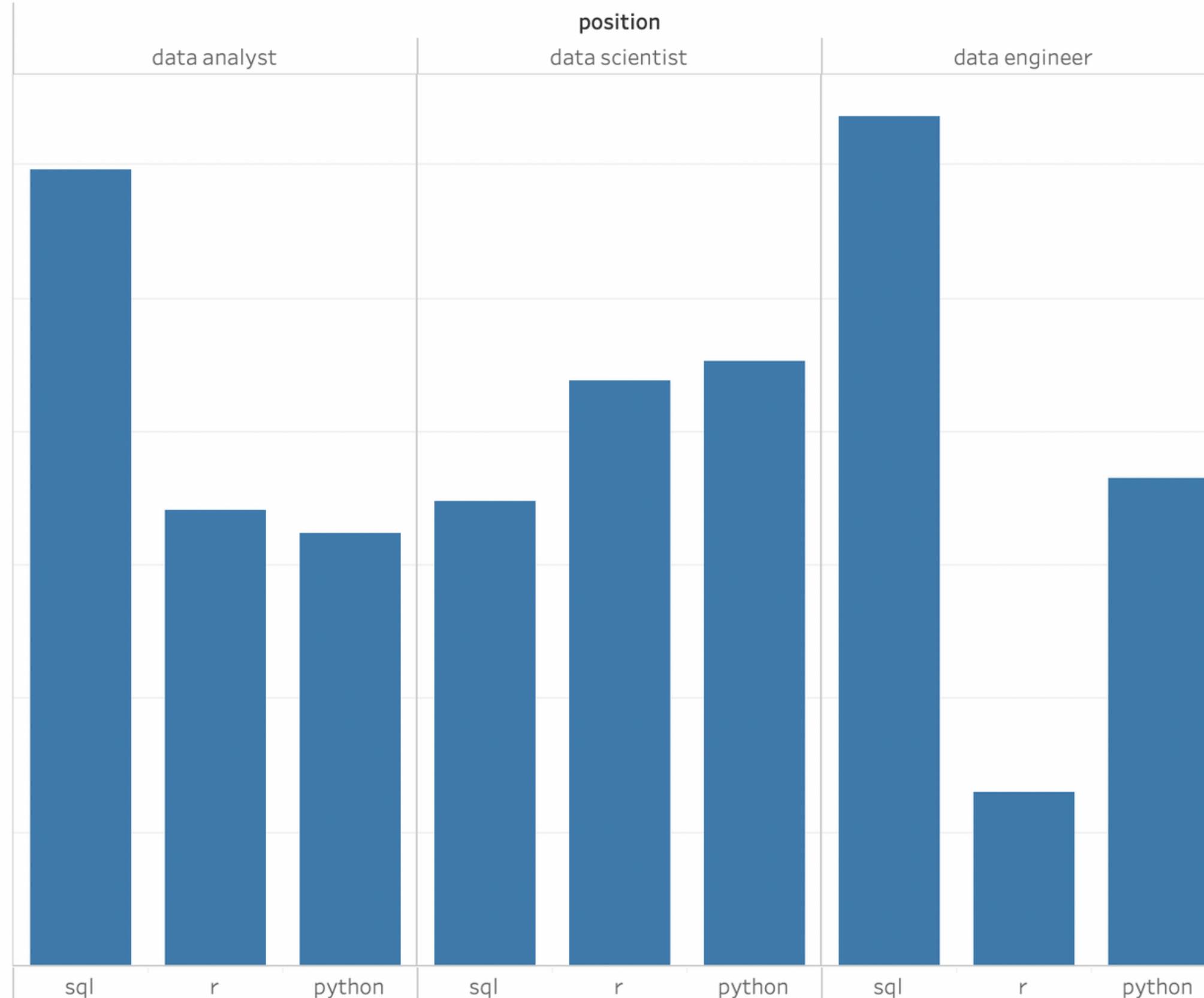


Visualization Tools - Total Jobs



# Between Categories - Programming Tools

Programming Tools x Category

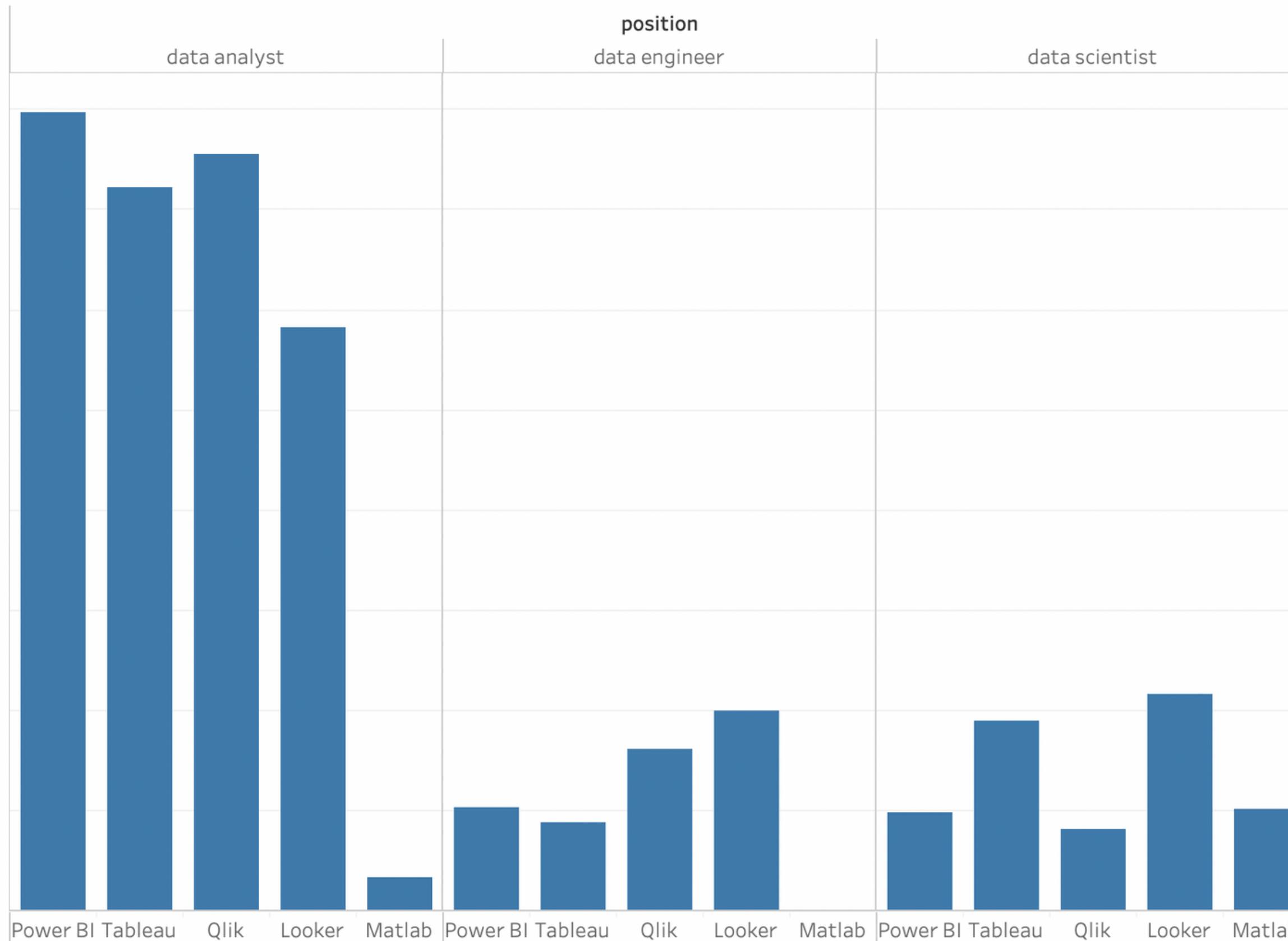


## Insights:

- DA and Engineer ask more SQL than python
- Scientist positions demand more python & r than SQL.
- DA and Scientist jobs – r and python very close
- Engineer jobs – Python > r

# Between Categories - Visualization Tools

Visualization Tools x Category

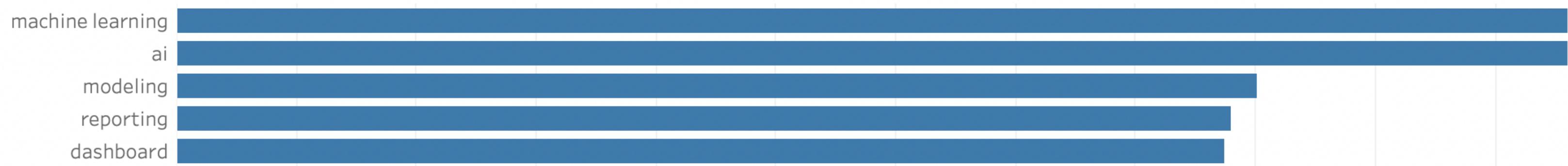


## Insights:

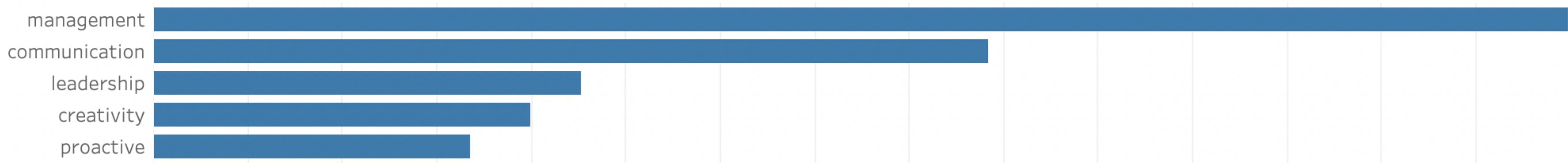
- More visualization in DA jobs (more jobs in general)
- The result is similar. Not a lot of differences between tools.

# Global Analysis - Hard Skills & Soft Skills

## Hard Skills (Total)

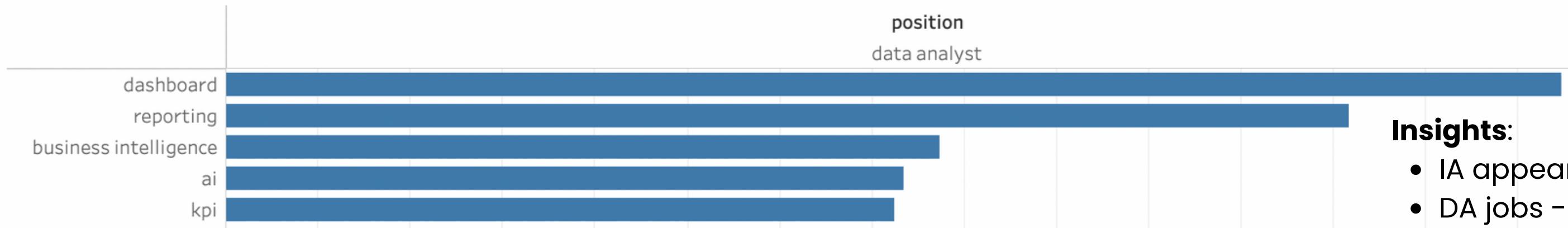


## Soft Skills (Total)



# Between Categories - Hard Skills

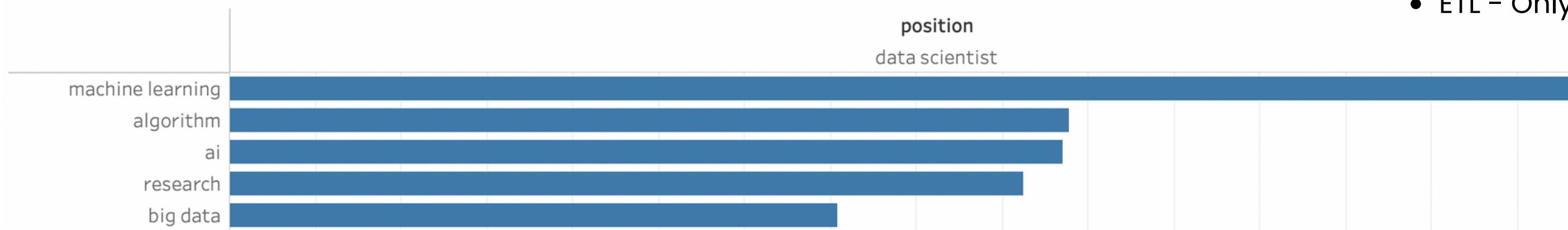
Hard Skills x Analyst



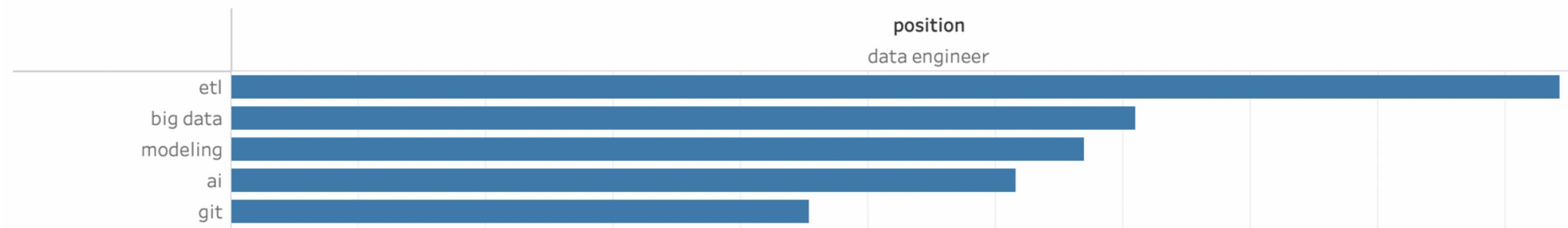
## Insights:

- IA appears in all three categories.
- DA jobs – hard skills related to visualization
- Machine Learning – only Scientist jobs
- Big Data – Scientist and Engineer jobs
- ETL – Only Engineer jobs and top 1 (all process)

Hard Skills x Scientist

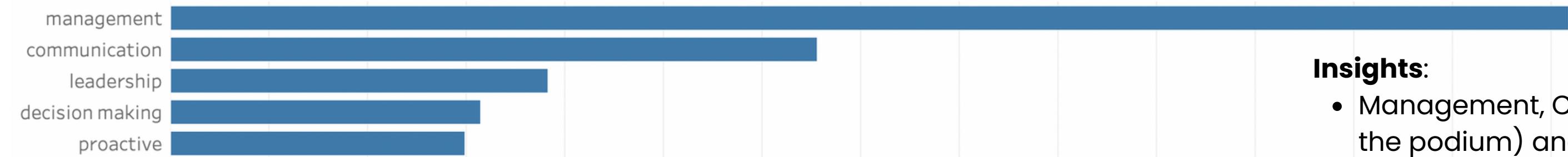


Hard Skills x Engineer



# Between Categories - Soft Skills

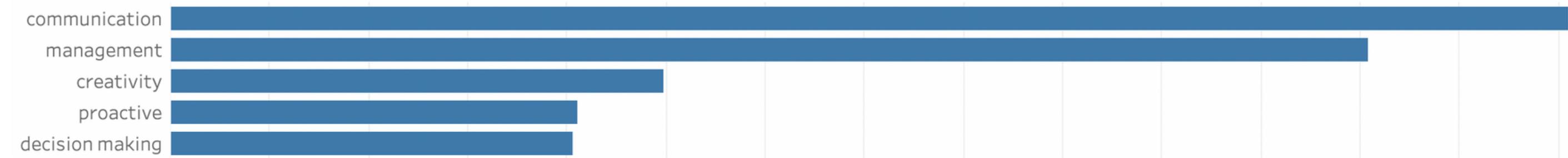
Soft Skills x Data Analyst



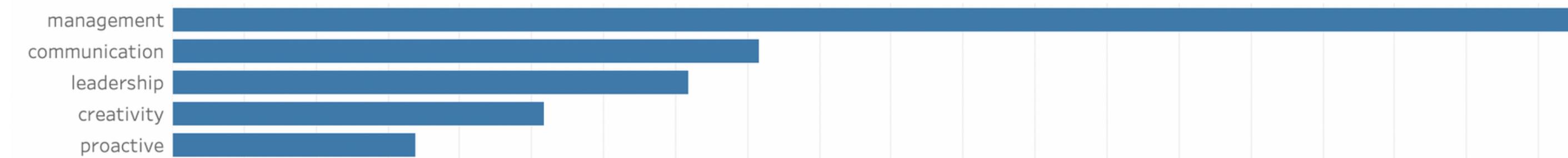
## Insights:

- Management, Communication (always in the podium) and Proactive skills are in all three categories
- Leadership appears in DA and Engineer jobs

Soft Skills x Scientist



Soft Skills x Engineer

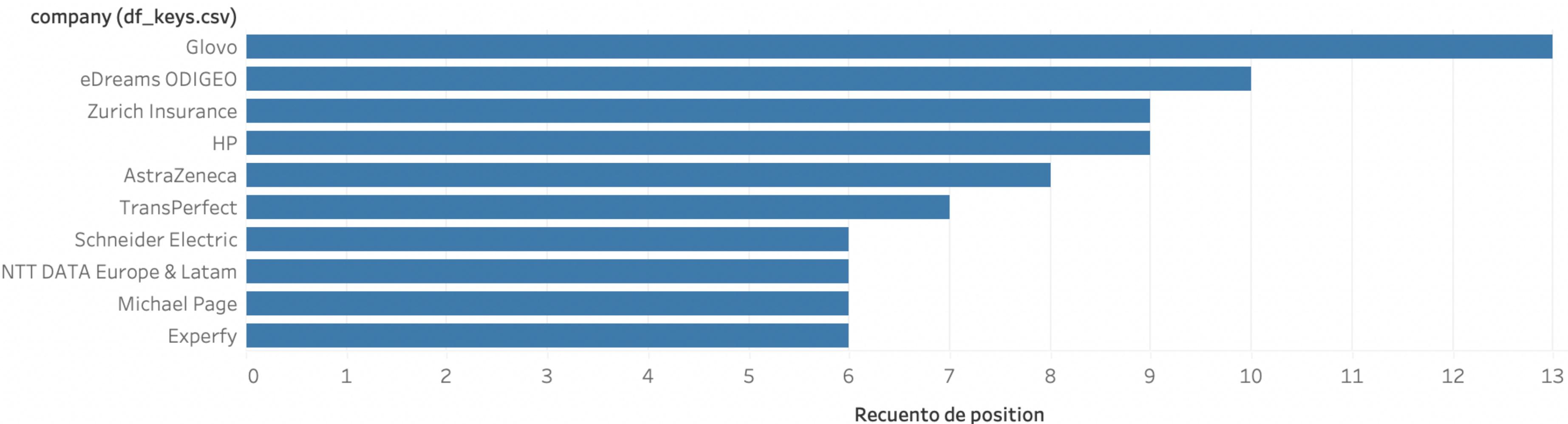


# Recap...If you want to become a Data Analyst

- Although the **hybrid format predominates**. It is the category with the **most on-site positions**.  
Maybe one of the **reasons** is that it is the category with **more junior positions**
- **SQL** is by far the **most demanded** programming tool. It is **followed**, of course, by **Python and r** (very close to each other)
- **Power BI and Tableau** are requested more or less equally
- **Hard skills** most in demand for Data Analyst jobs are closely related to **visualization (Dashboard & Reporting)**
- Most popular **Soft Skills** for a Data Analyst are Management, Communication, Leadership, Decision Making and Proactivity.
  - *This is why it is so important that if in our background we have been in roles where we have enhanced these skills, we must make them shine in the selection process!!!!*

# **\*Bonus Track: Top companies in need of talent**

## Bonus Track: Top Companies



# Next Steps

- Use this project for other fields and locations.
- See differences over time
- Try to introduce the salary feature, as it could provide incredible insights.
- Use SQL to be able to have a model.

# THANK YOU

