



DATA MARKET IN BARCELONA

ANALYSIS OF DATA JOBS IN BARCELONA

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Agenda

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

Tools used:



Method



Webpages



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



Web Scraping

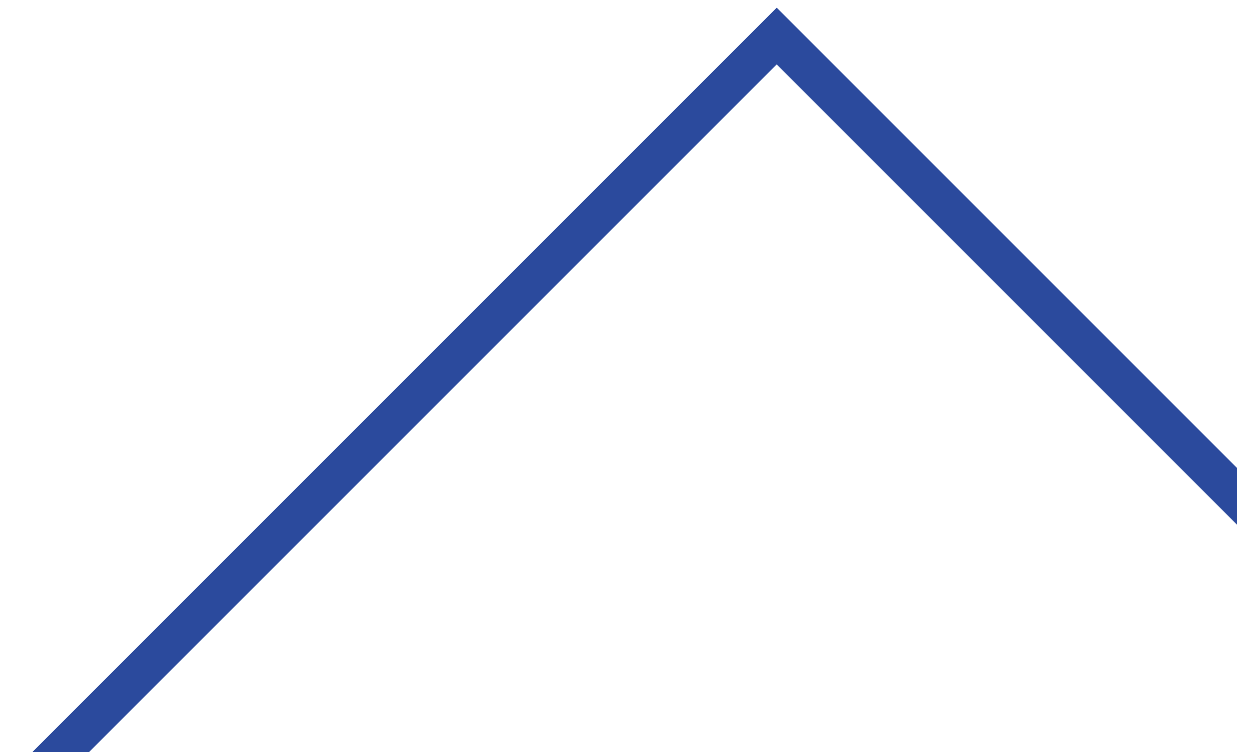
- HTML
- BeautifulSoup (python)
- Selenium (python)



Structured data

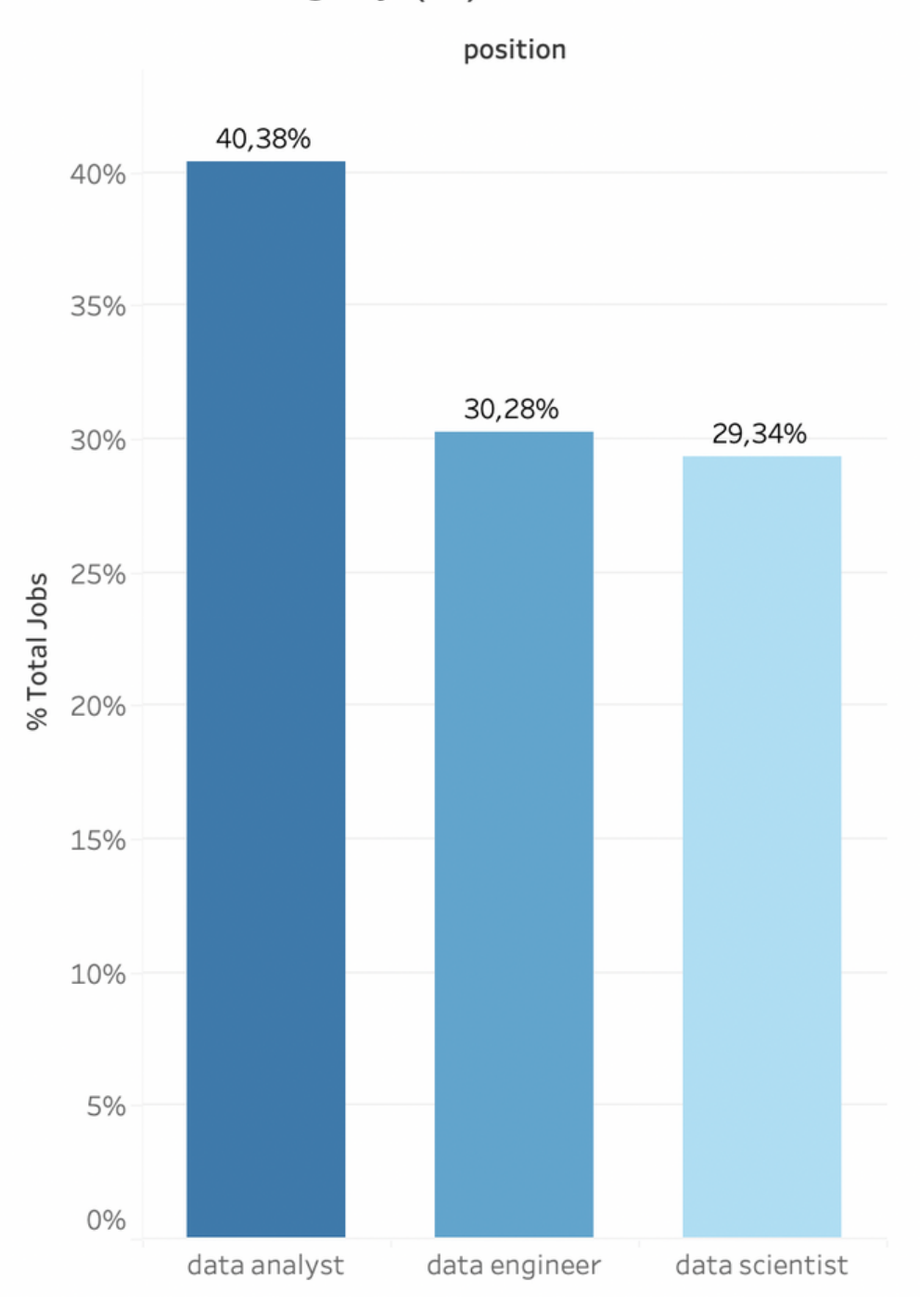
- Extracted Data: "Title", "Company", "Location", "Modality" & "Description"
- Data Cleaning
 - Python
 - NLTK

Global Analysis

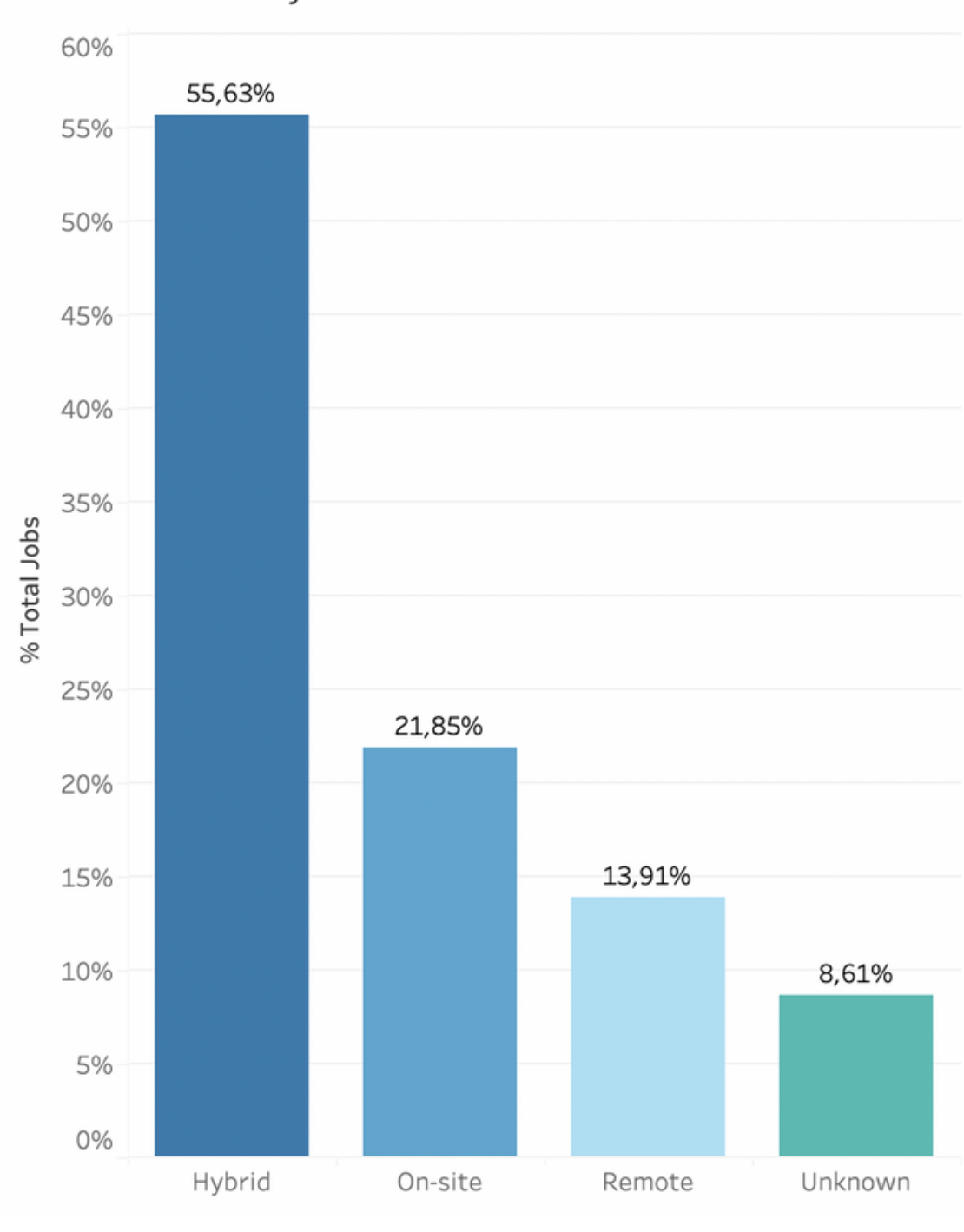


Global Analysis - Category, Modality & Seniority

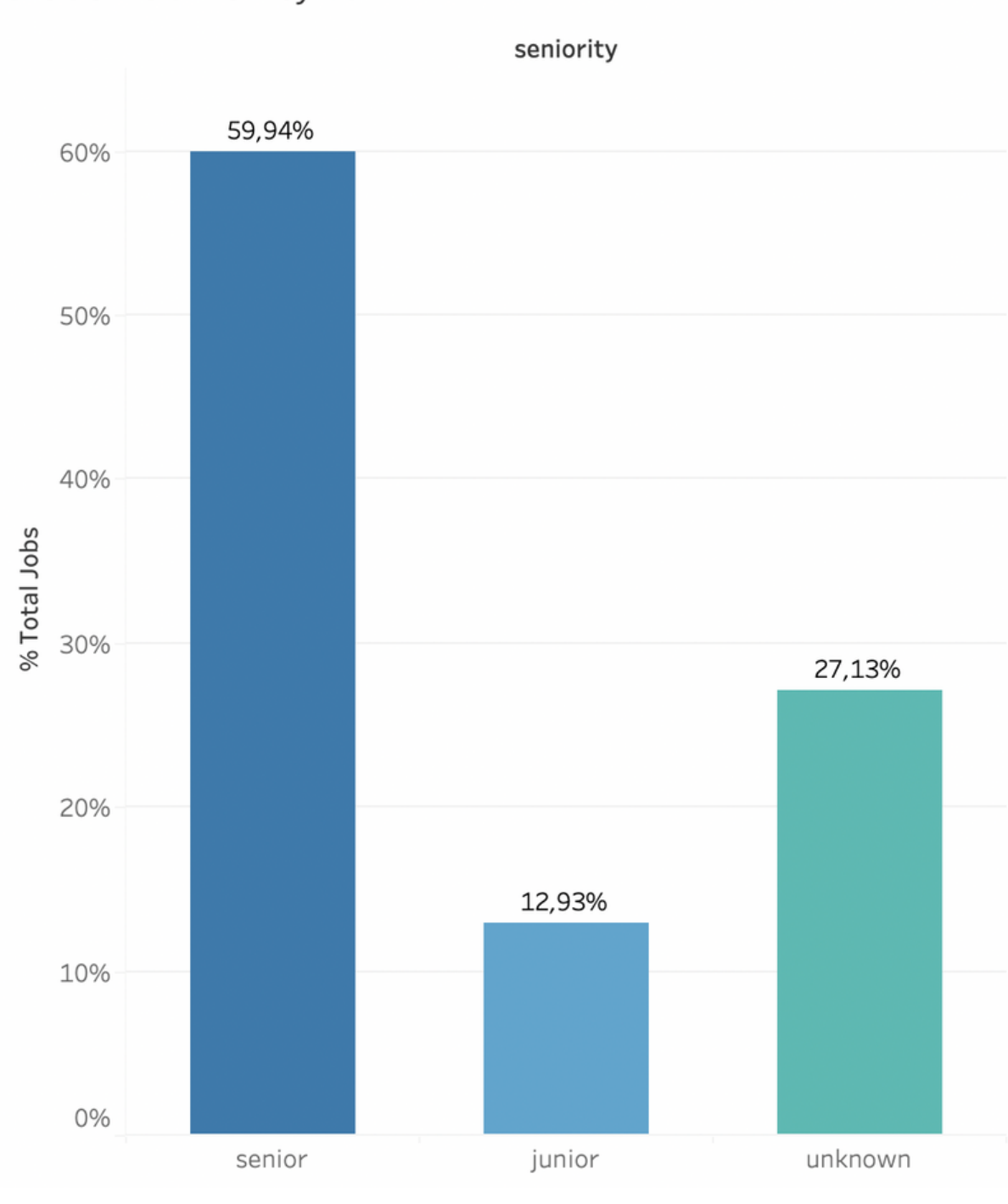
All Jobs x Category (%)



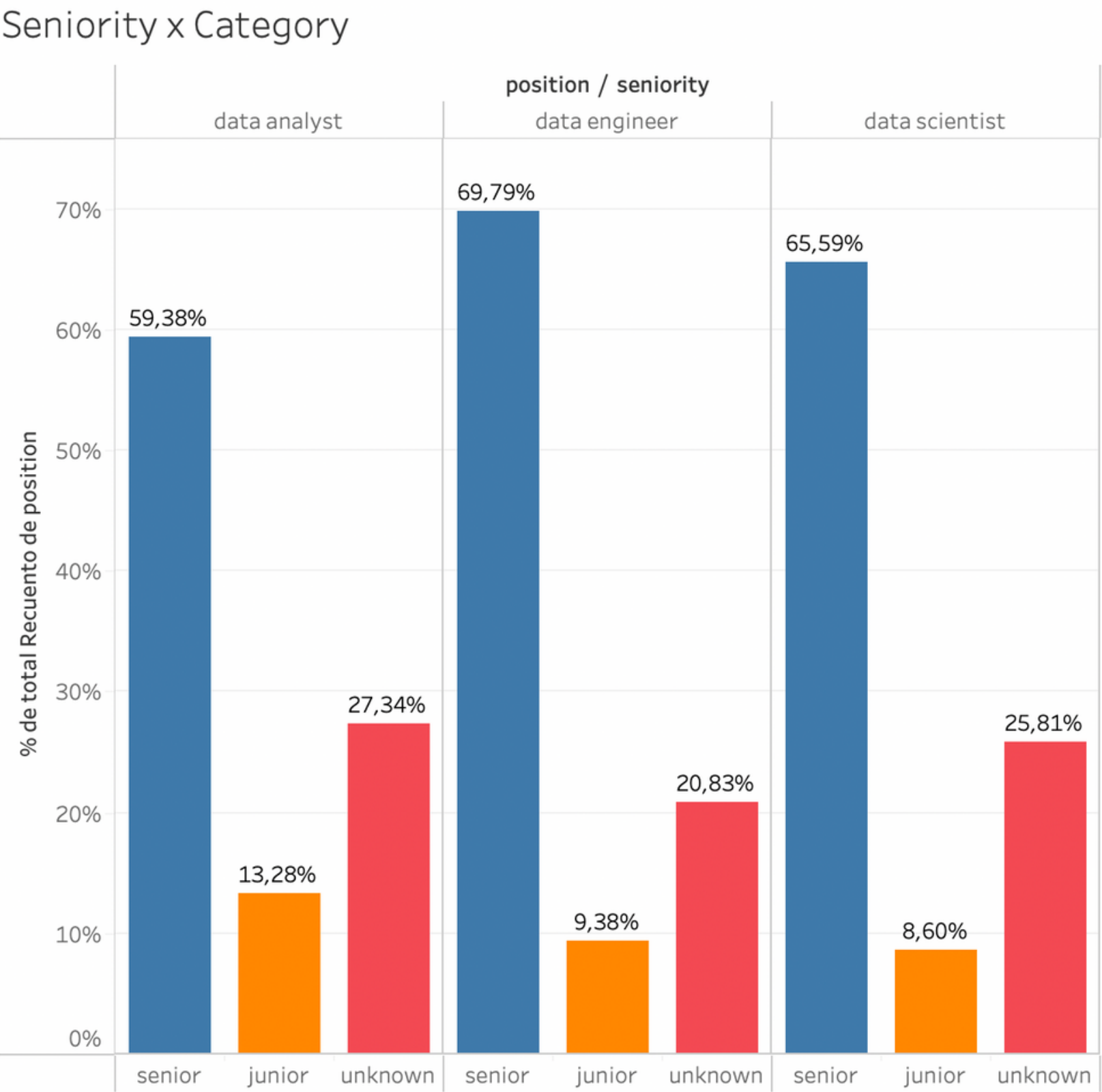
Global Modality %



Global Seniority %



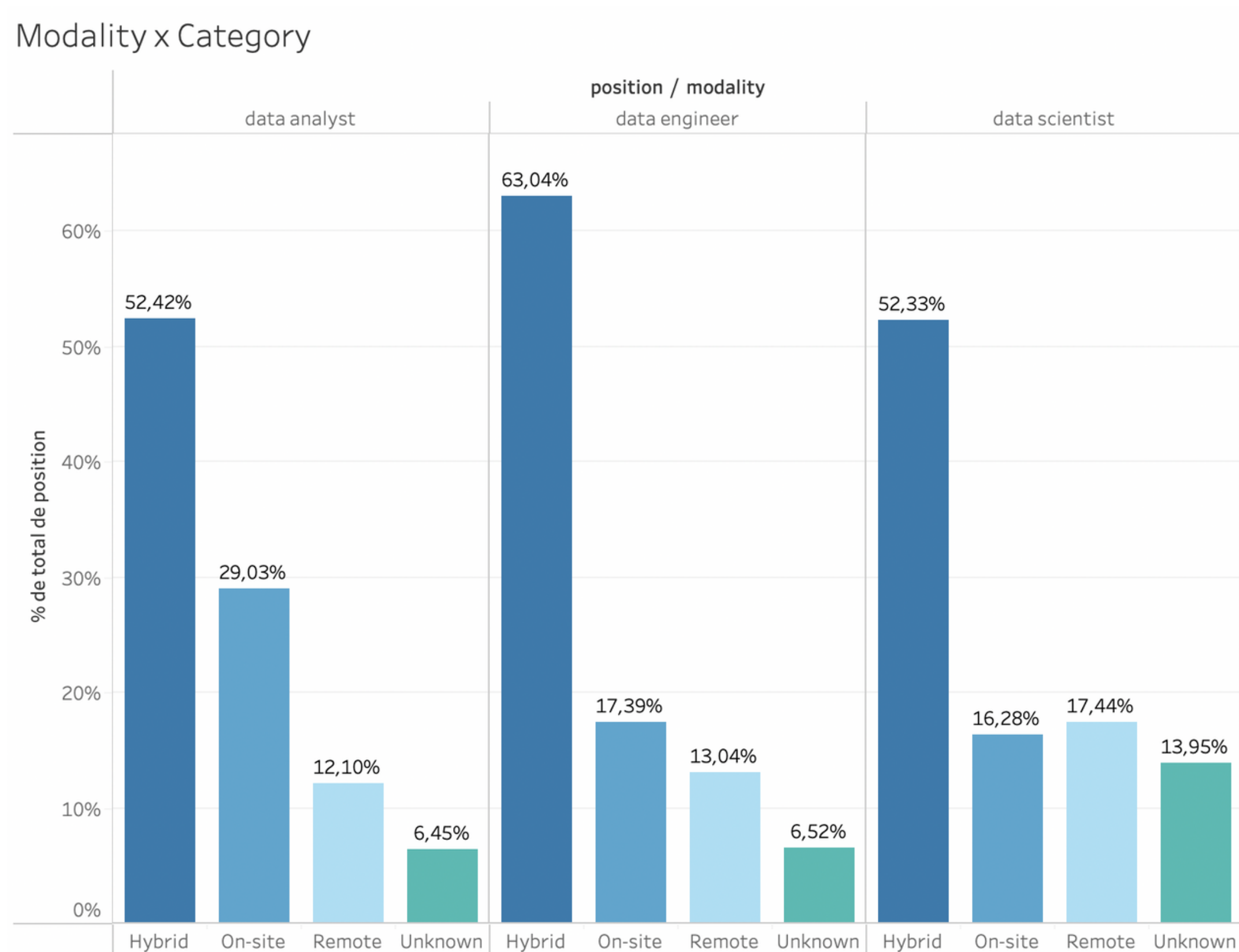
Seniority x Categories



Insights:

- Much more senior positions. Better defined? more standardized?
- A lot of unknown positions per category. Non-standardized? Open to all experiences?
- Data Analysts with more junior positions. Possible reason why there are more on site positions in this category.

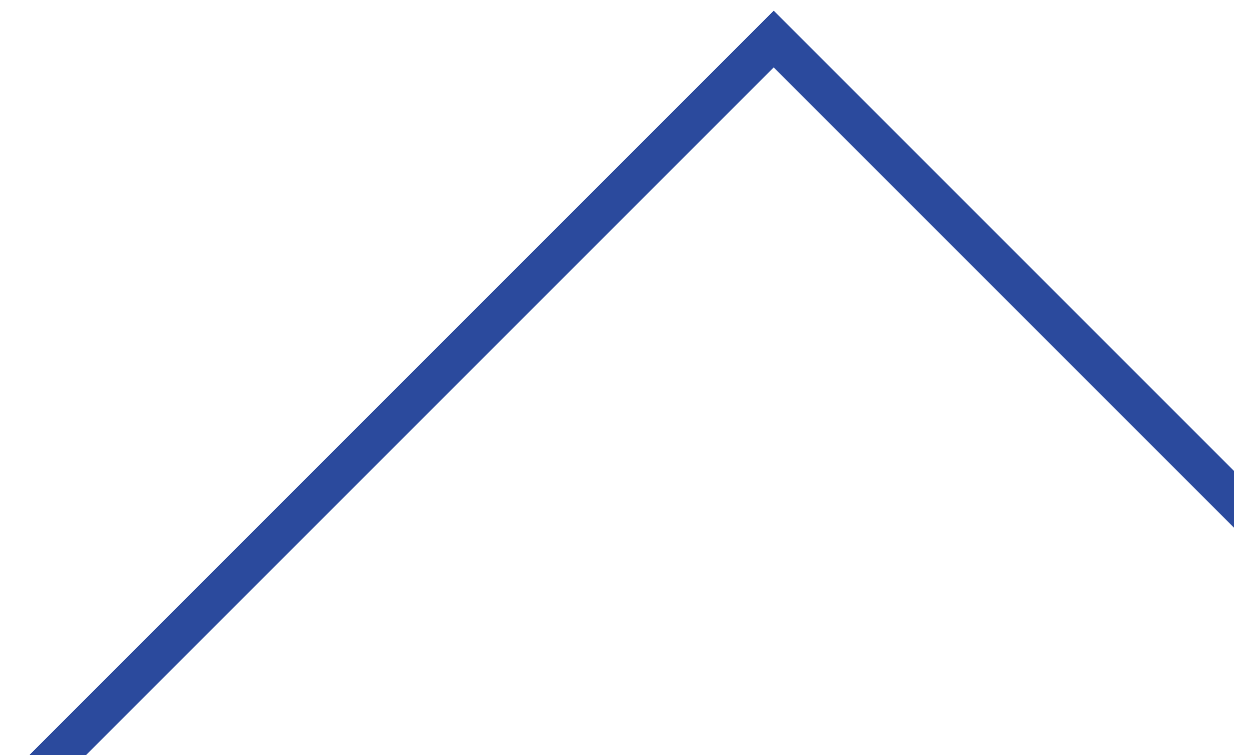
Modality x Categories



Insights:

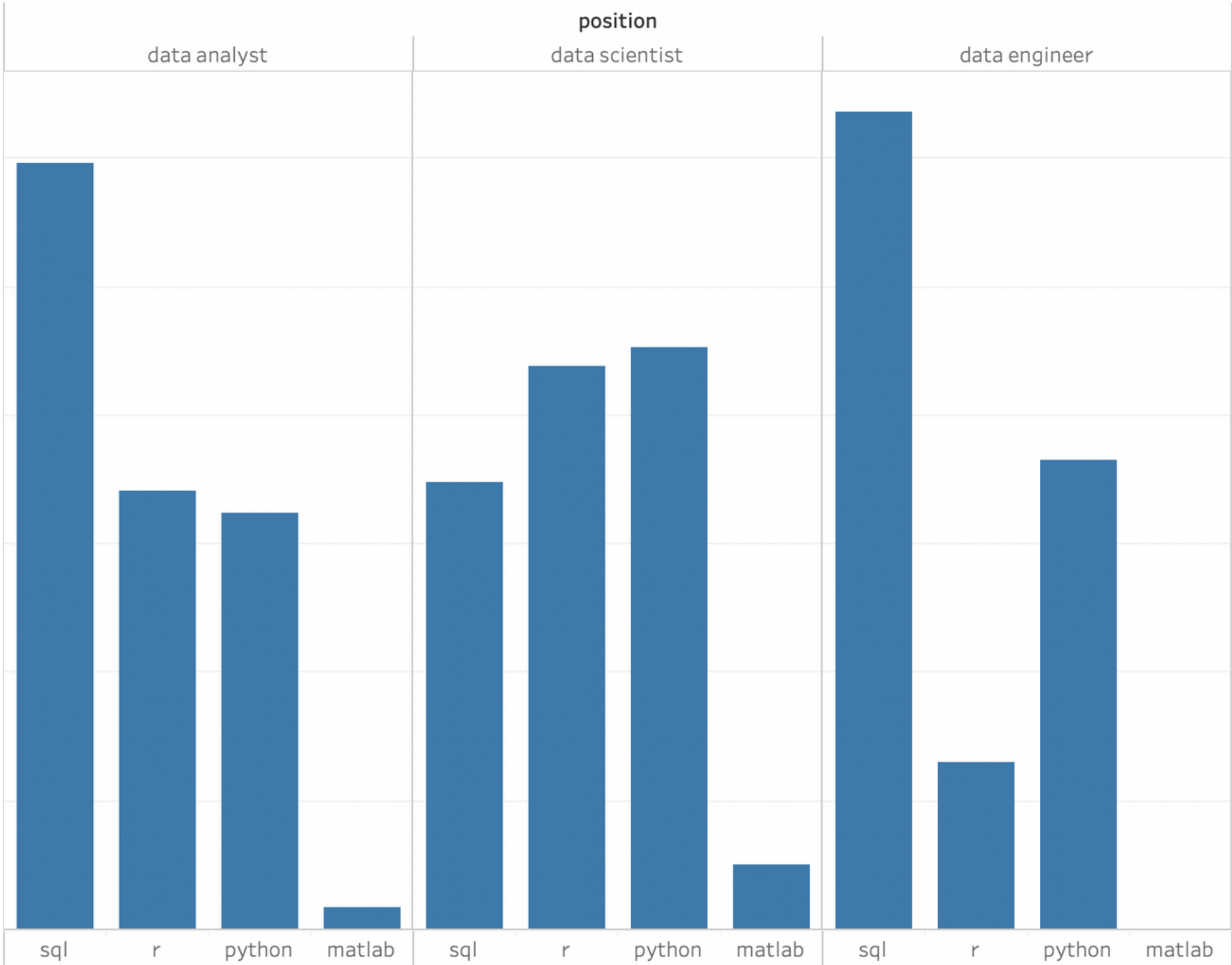
- Hybrid positions are the most common by far.
- Much more on-site positions on Data Analyst jobs. Because more junior positions?
- Data Science is the only category that has more remote jobs vs on-site jobs

Keywords Analysis



Categories x Programming Tools

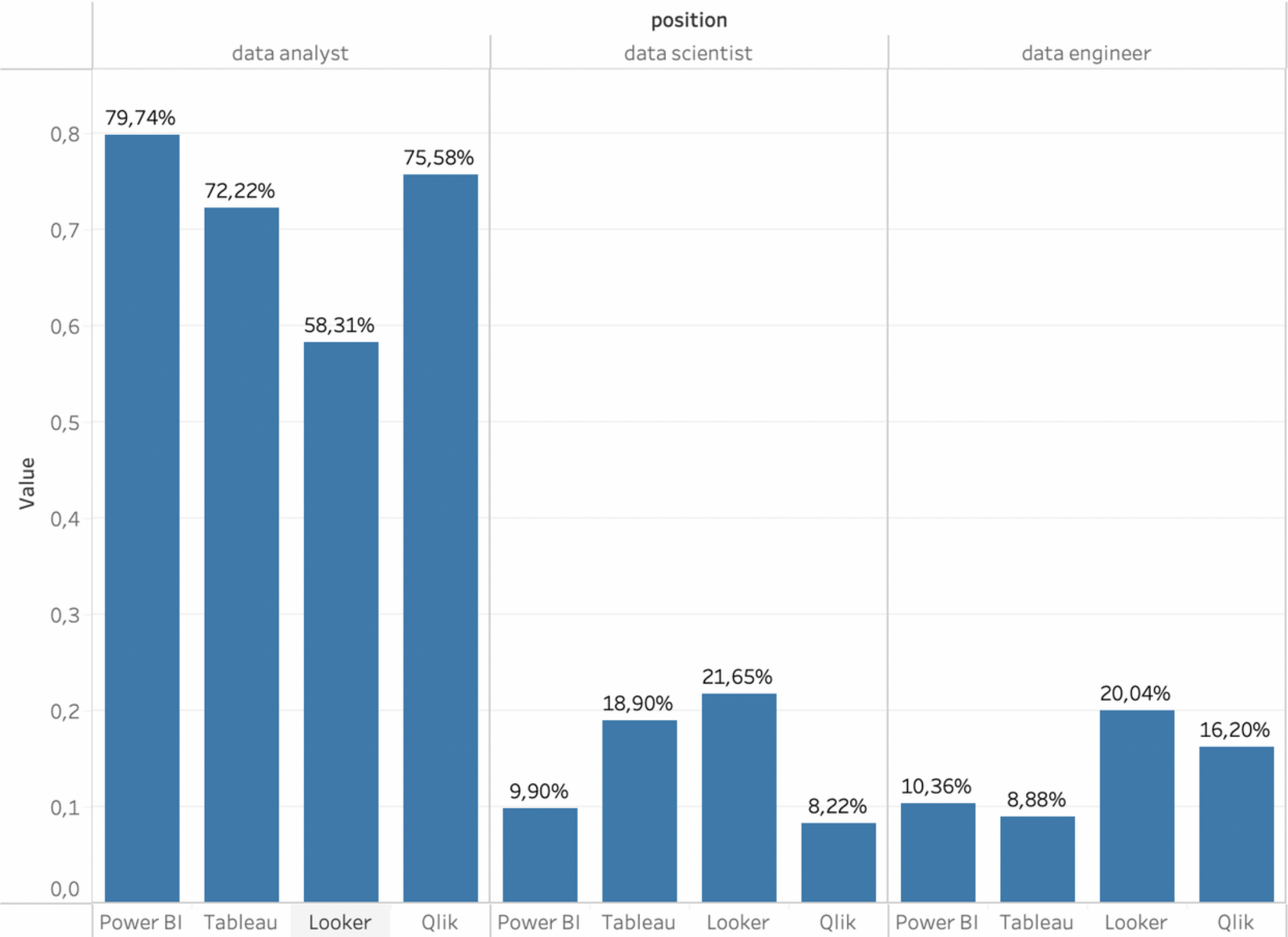
Programing Tools x Category



- Insights:**
- SQL is by far the most requested tool for DAs and Engineers.
 - Scientist positions is the only one that demands more python and r than SQL.
 - Python and r are demanded more or less equal, except in the Engineer jobs.

Categories x Visualization Tools

Visualization Tools x Category

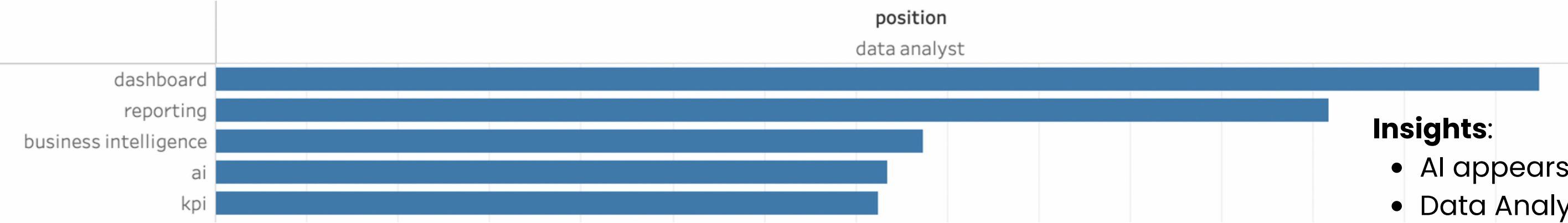


Insights:.

- More visualization in Data Analyst jobs (by far)
- All visualization tools are required at the same level. Looker and Qlik are already beginning to play an important role.
- Scientist and Engineer re positions where almost no visualization tools are required.

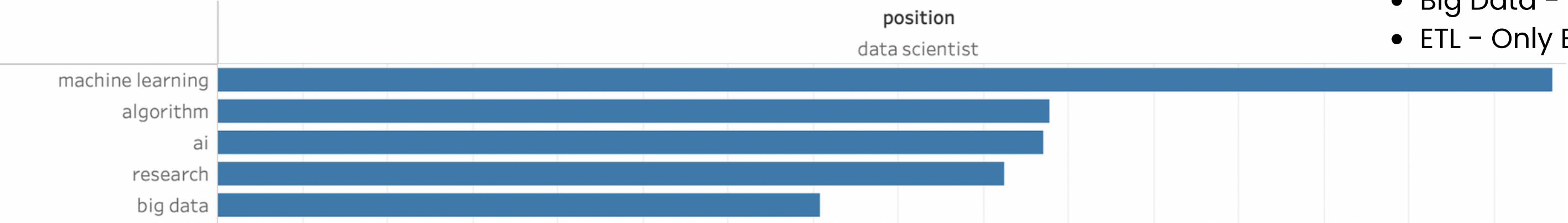
Categories x Hard Skills

Hard Skills x Analyst

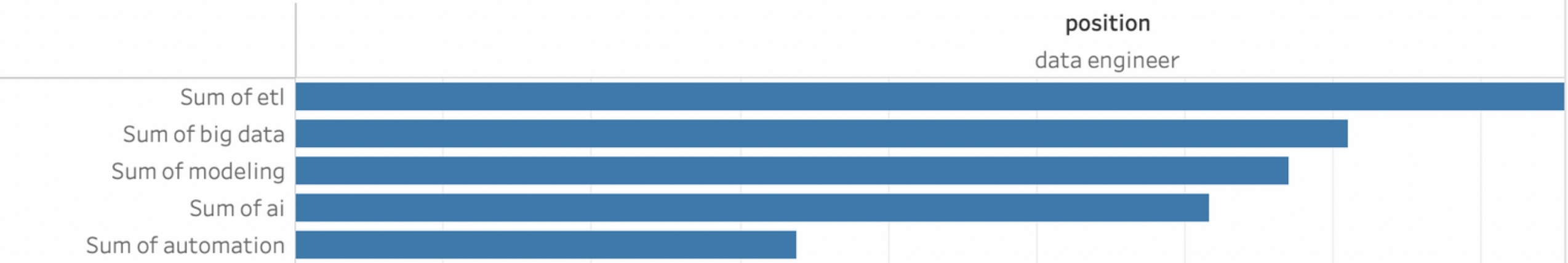


- Insights:**
- AI appears in all three categories.
 - Data Analysis jobs – hard skills related to visualization
 - Machine Learning – only Scientist jobs
 - Big Data – Scientist and Engineer jobs
 - ETL – Only Engineer jobs and top 1 (all process)

Hard Skills x Scientist

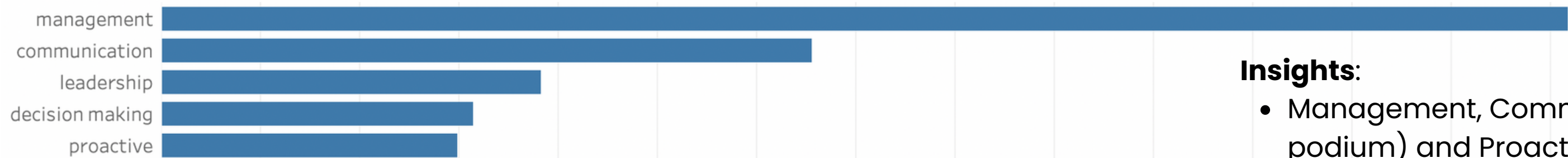


Hard Skills x Engineer



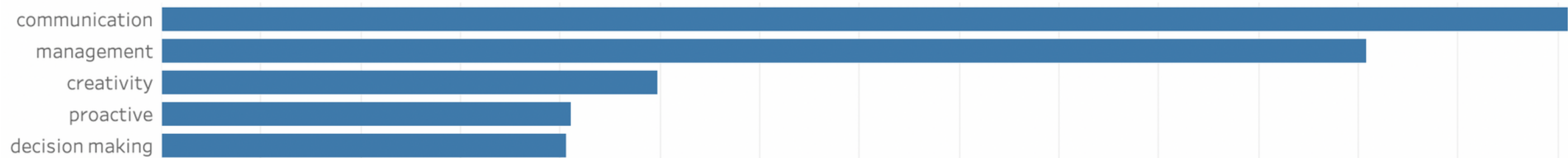
Categories x Soft Skills

Soft Skills x Data Analyst

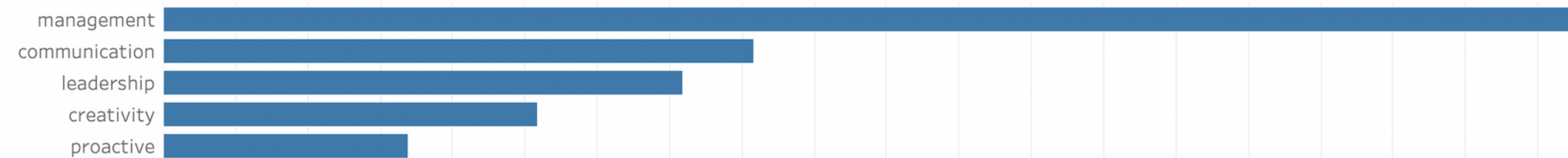


- Insights:**
- Management, Communication (always in the podium) and Proactive skills are in all three categories.
 - Leadership appears in DA and Engineer jobs
 - Let's consider Leadership and Creativity as important

Soft Skills x Scientist



Soft Skills x Engineer

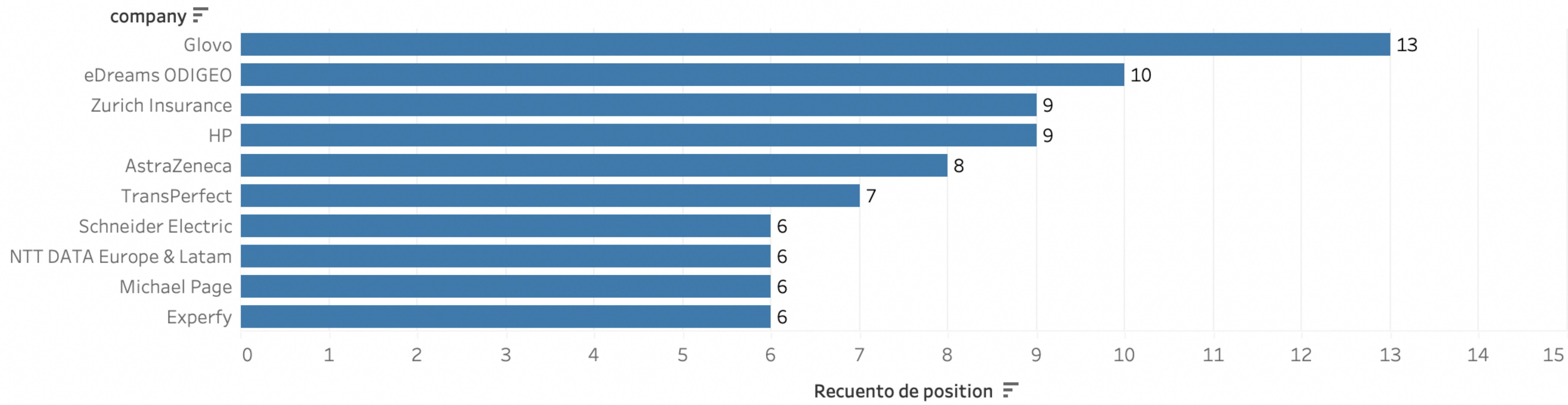


Recap...If you want to become a Data Analyst

- 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).
- **Visualization** tools are required in at least **80%** of the Data Analyst positions. **All equally requested**.
- **Hard skills** most in demand for Data Analyst jobs are closely related to **visualization (Dashboard & Reporting)**. Related to the fact that in DA positions, visualization skills are in high demand.
- 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

- Add more categories (Business Analyst, Machine Learning, etc)
- Use this project for other fields and locations. This project is a tool!
- 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!

"Torture the data, and it will confess to anything."

— Ronald Coase

