Rolls, skills and income for Jobs in 2023

The aim of this document is to provide context to the project I worked on.

Since I am interested in technology positions, specifically as a data analyst or business analyst, I found a 2023 database with this information. It is based in America (with additional data from Spain), but it will serve our purpose for the analysis. The data is in .CSV format.

We will use VSCode to perform the analysis, connected to a PostgreSQL database that we will create. Due to the project's scope, this document will serve as a report, showing the results and conclusions. For more information on the code, it will be available in the repository.

1. CREATION OF THE DATABASE

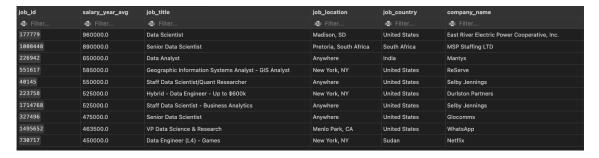
The first thing we need to do is connect to PostgreSQL and create the database, followed by creating the tables and adding the data. We will create four tables.

2. DATA ANALYSIS

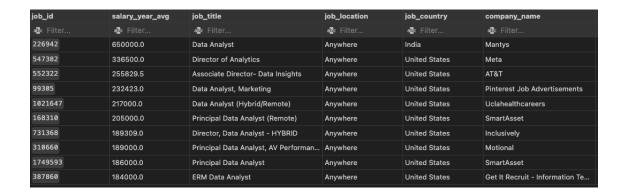
We posed several questions that we aimed to answer regarding the skills and salaries related to the role of a data analyst. However, there are more roles listed in the tables. Therefore, we will consider them in relation to the data analyst role.

- Highest-Paid Job

In general, we found that these are the 10 highest-paid jobs.



However, we want to delve deeper by specifically analyzing remote positions and data analyst roles.



- Skills for These Highest-Paid Jobs

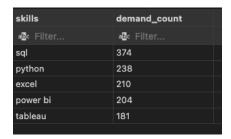
We can see that data analyst roles demand proficiency in these programs. Specifically, 100% of them require SQL, followed by Python. Data scientist roles are higher paid but require skills such as Java, Python, or C++. Data analyst positions are less remunerated but require different skills.

However, it is surprising that the highest-paid jobs do not seek candidates with visualization skills such as Tableau or Power BI.

| job_id | salary_year_avg | job_title | company_name | skills |
|------------|-----------------|-----------------------------------|--------------|------------|
| alc Filter | als Filter | alc Filter | abc Filter | abc Filter |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | sql |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | python |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | r |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | azure |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | databricks |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | aws |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | pandas |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | pyspark |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | jupyter |
| 552322 | 255829.5 | Associate Director- Data Insights | AT&T | excel |

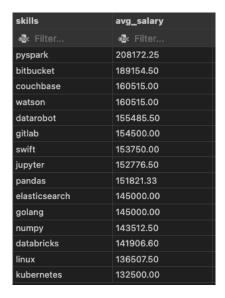
Most In-Demand Skills

While we previously noted that the highest-paid jobs did not require visualization programs, we now find that the most in-demand programs are SQL, Python, Excel, Power BI, and Tableau. Therefore, these programs do appear in this context. In this case, we have filtered again for data analyst roles.



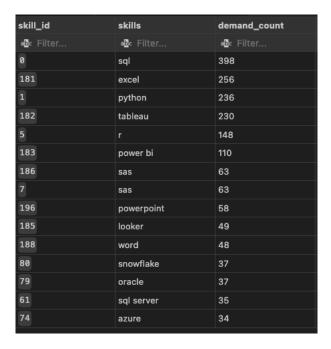
Which Skills Pay More

We found that there are several skills that will result in higher pay if mastered.



- What to Start Studying When Beginning in the World of Data Analysis?

We found that when starting out, you should specialize in SQL, Excel, and Tableau. In the future, you can add Python skills to complete your stack, but certainly, the first three are essential.



3. CONCLUSION

We have seen that, specifically as a data analyst, we will need to master SQL, Excel, and a visualization program like Tableau or Power BI. Once these are mastered, we should focus on learning programming languages such as Python or R. Based on the analysis, it is indifferent which one is learned first. However, Python tends to be in higher demand.

Although Python appears before visualization programs in terms of importance, it is also more complex. From my perspective, it is better to leave it for later and first establish a solid foundation with the other skills.

Once you have learned the basics, you could work as a data or business analyst. As we have seen, the salaries for these roles are lower than those for data scientists, but they are still quite good.