

Salary Adjustments in Data Science Employment

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Data Exploration

The purpose of this analysis is to adjust offers, conditions, and requirements for new contracts. Key factors considered are location, experience, employment type, and the year. Although company size is relevant, I decided to focus on market conditions (year), experience, and contract type. Experience and expertise levels are mapped 1:1 and treated as the same. We also assume that the year reflects overall market conditions.

After analyzing the data, the key questions I considered for each role and experience level are:

- (1) Which countries have higher salaries?
- (2) How have salaries evolved over the past years?
- (3) Does employment type affect salary?
- (4) What is the expected salary increase?

Visualization Functionalities

The story consists of two similar dashboards, each displaying a map with the average salary per country and a plot of salary evolution over the last 4 years in the tooltip. The first dashboard shows the impact of experience level, while the second highlights the effect of employment type in detail.

Data Analysis

From the data visualization, we can draw the following conclusions:

- (1) The countries with the highest salaries are Israel, Puerto Rico, the US and Saudi Arabia. Focusing on data analysts at the entry level (because of personal interest), the US stands out as the highest payer. I will use this as my example for further analysis.
- (2) Salary trends are highly location-dependent. For instance, while salaries are increasing in the US, they have decreased in countries like Portugal and India.
- (3) The average salary for a data analyst is \$110K for full-time employees, \$90K for contractors, and \$50K for part-time employees. The salaries of contractors and full-time employees are somewhat similar, although the benefits are quite different.
- (4) In the US, salary growth appears to be relatively linear, suggesting a fair estimate of around \$160K to \$170K for future projections. In Spain we can also see that all job titles and levels are quite stable, although the tendency seems to be downwards, thus a great estimate would be between \$60-70K.

Insights

We can gain insights into salary trends by country, job title, and experience level. Countries like India offer affordable talent with decreasing salaries, while the US and Israel demand higher salaries due to competitive markets. This allows HR to adjust recruitment strategies based on region. Moreover, different employment types, such as contractors, may offer cost-effective alternatives to full-time employees, as contractor salaries are often comparable but come with fewer benefits. The HR team can also adjust salary progression based on experience level. In summary, the visual analysis is intended to support HR decision-making.