Data Scientist Salaries: Comparison

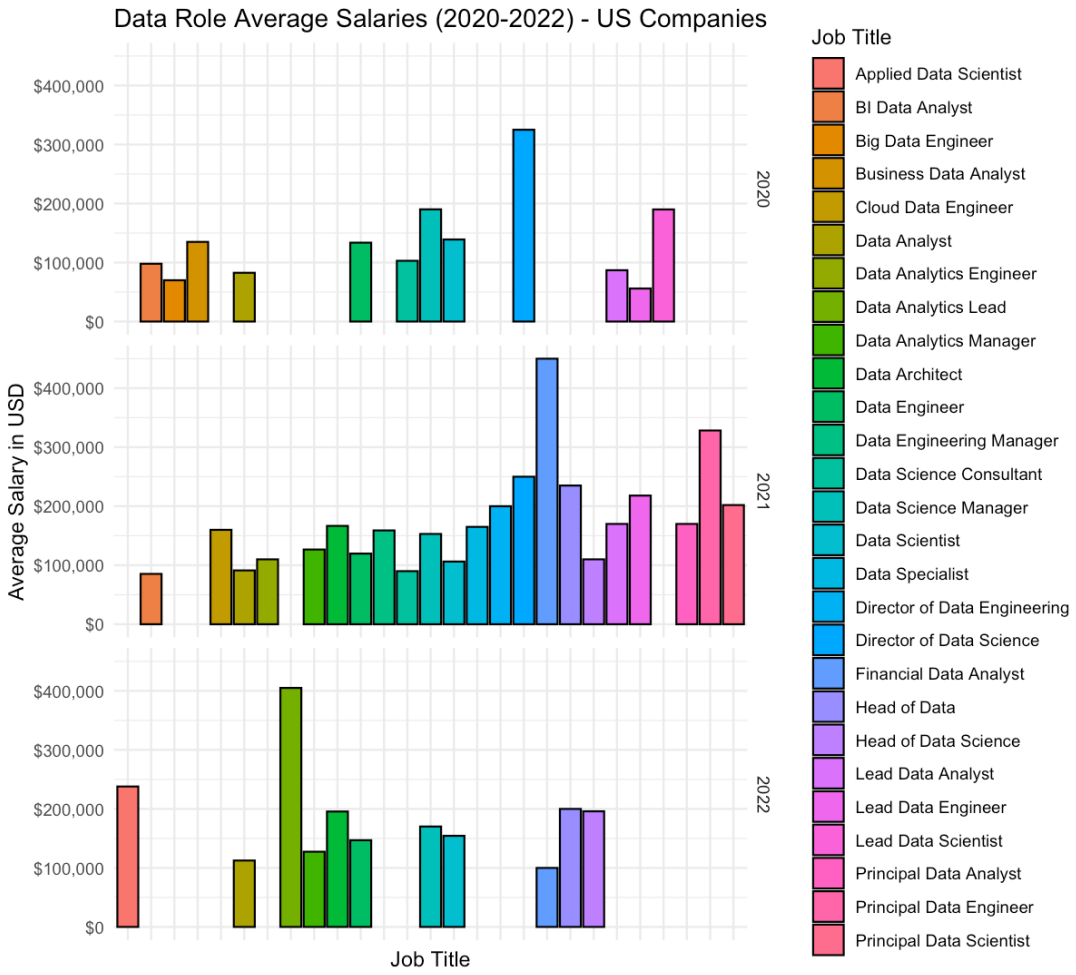
Nathan Monges

Abstract

As the demand for skilled data scientists continues to rise, understanding the dynamics of data science salaries becomes increasingly vital for businesses striving to attract and retain top talent. This analysis aims to investigate the salary landscape within the data science domain, focusing on the disparity between offshore and United States-based positions. By examining salary trends through the years of 2020-2022, we can provide insights into the competitive range necessary to attract top talent while considering the company's expansion goals. Through visualizations and data-driven analysis, this presentation will offer recommendations to the CEO on how to position the company competitively in the evolving data science job market.

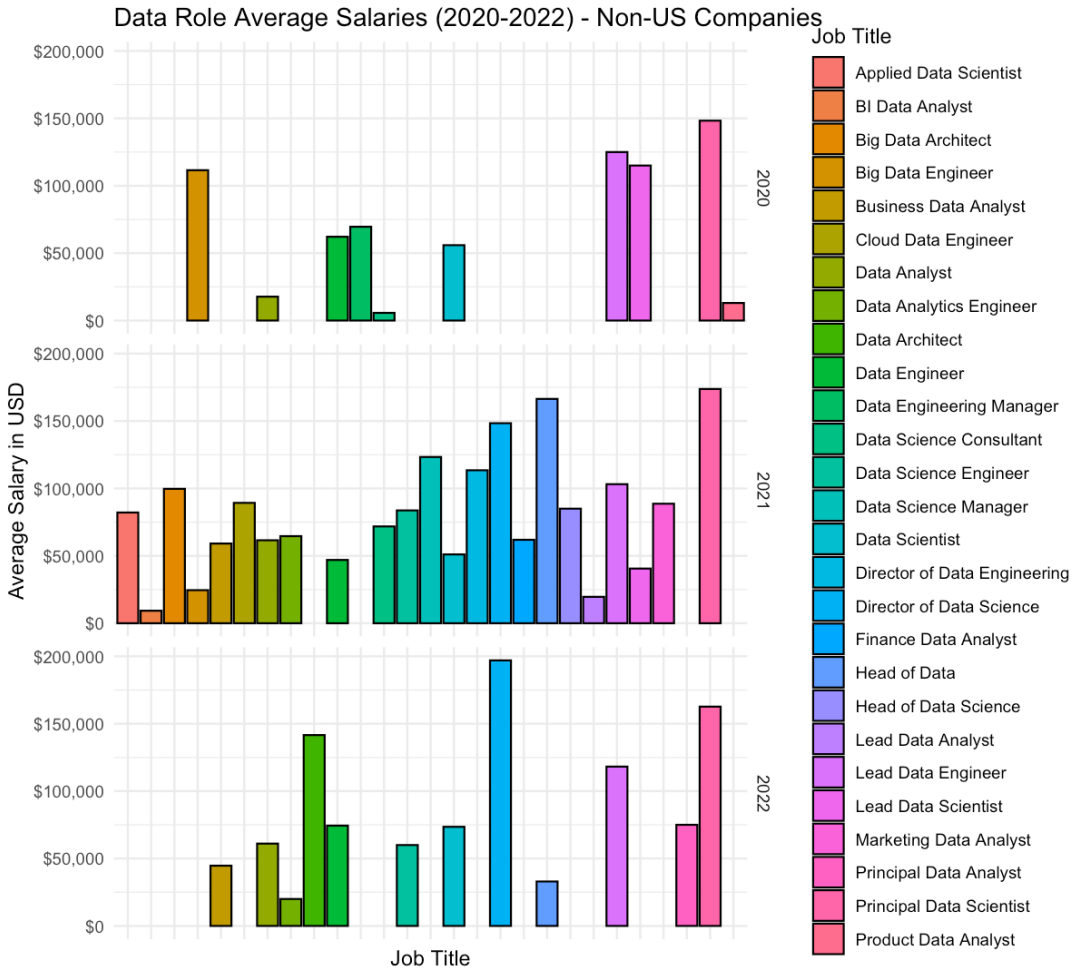
Why this matters …

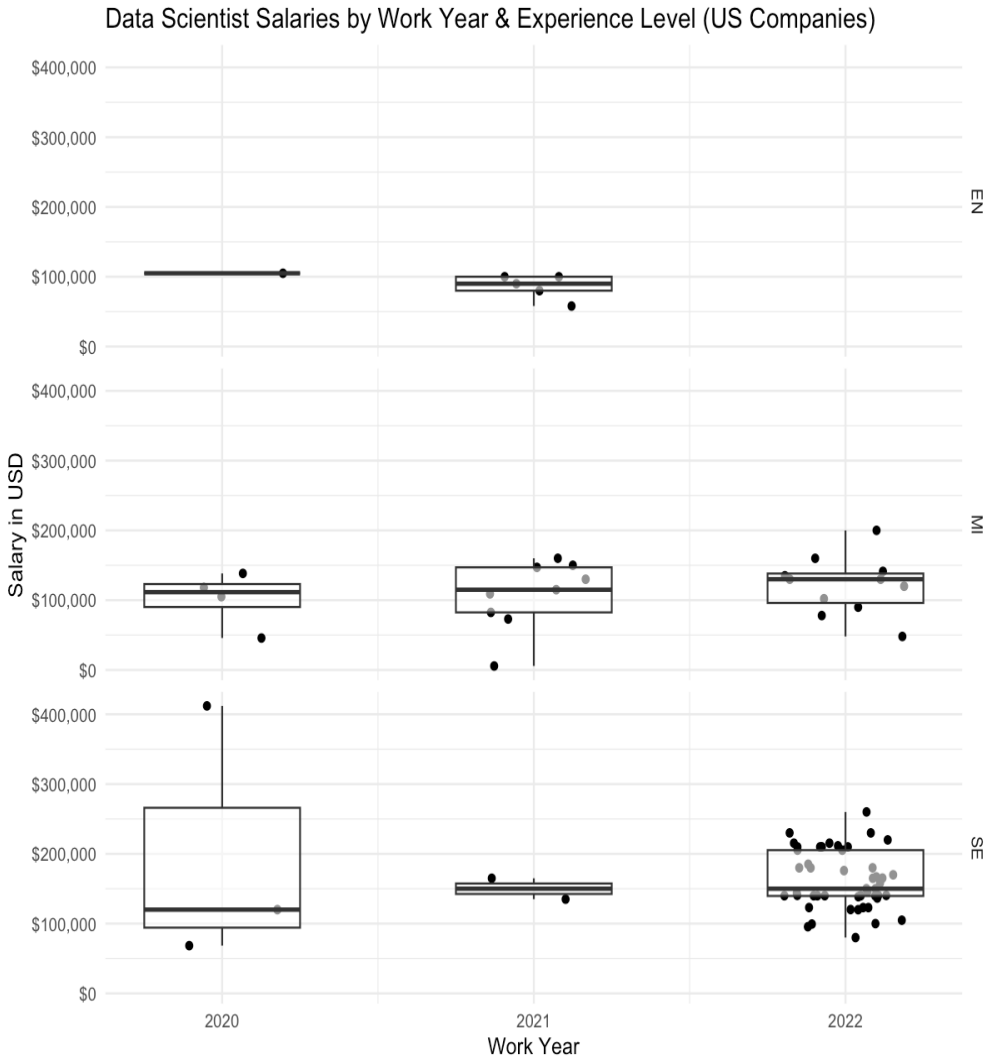
Through the years of 2020-2022, the escalating demand for data-related positions has led to a surge in salaries within the field. It is important to understand these fluctuations in salaries when seeking a specific role, as it allows us to remain competitive in the job market and within the means of the company's budgets. This image displays the recent emergence of new roles in data through the years within companies in the United States (US). The range of their average salaries signify their overall worth and value to their companies. If we take a closer look at the average salaries for Data Scientist roles, we can see from the years 2021-2022 alone, salaries have increased close to $55,000. Although this sample does not differentiate between experience level and salary, from this image it is evident that salaries for this position are only increasing.



Let’s compare to offshore companies

When considering new roles in the field of data, it's crucial to compare offshore salaries to those in the US. This analysis ensures our competitiveness in both markets, especially as we're open to hiring positions remotely. Initial investigation of offshore data role salaries reveals significant disparities compared to US counterparts. Specifically, as of 2022, average salaries for offshore Data Scientist roles show a 52% reduction compared to their US equivalents, representing roughly an $81,000 difference. However, it's important to note that this comparison doesn't factor in experience level, which significantly impacts salary ranges and warrants further investigation.



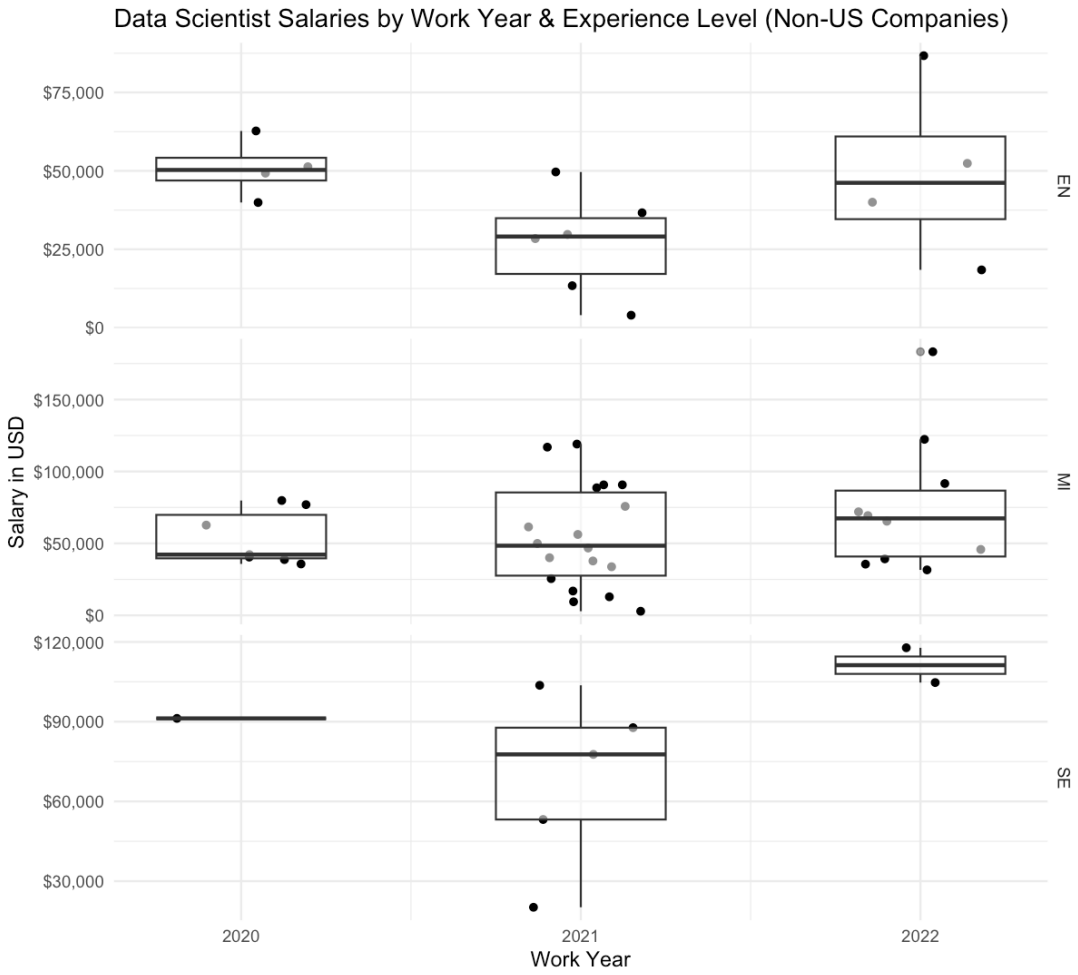


Salaries by Levels of Experience

We've refined our data to compare Full-Time (FT) Data Scientist salaries by experience level - Entry Level (EN), Mid Level (MI), and Senior Level (SE) - across the years 2020-2022. This allows us to detect salary differences across experience levels and establish competitive ranges. In 2020, EN roles typically ranged just below or around $100,000 with minimal outliers, while MI roles hovered around a median of $125,000, similar to SE roles but with more variability based on workload and company size. However, salaries have steadily risen over the years, with MI and SE roles seeing increases of nearly $50,000 by 2022, with SE roles showing less variance but still reaching over $200,000. Notably, there's no data for EN roles in 2022, suggesting a potential decrease in demand as salaries rise.

Salaries by Levels of Experience – Offshore

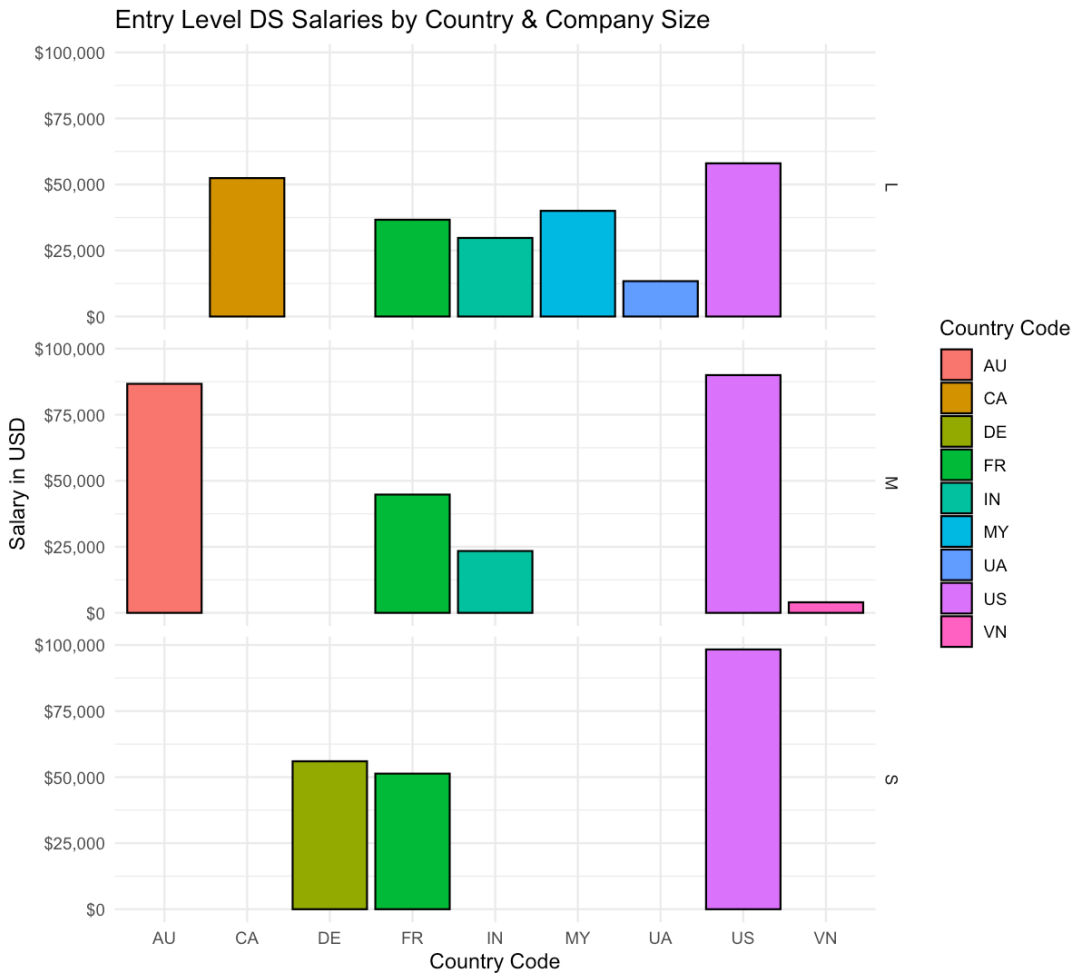
Once more, we examine salary ranges by experience level across the years 2020-2022, this time focusing on offshore companies within the same sample as our previous analysis. Here, we observe the influence of experience level on salary. In 2020, SE roles notably earned around $40,000 more than EN and MI roles. Over the years, SE salaries have continued to rise, approaching a median of nearly $120,000, just shy of the median for SE roles in US companies. Meanwhile, MI salaries offshore have also seen increases, reaching close to $75,000, a significant difference from their counterparts in US companies. In contrast, EN salaries offshore have remained relatively stable, ranging between $40,000 and $60,000. It's crucial to consider outliers in these data sets, as company size can significantly impact salaries based on workload. Subsequently, we will delve deeper into how company size and workload influence salary ranges across different experience levels.

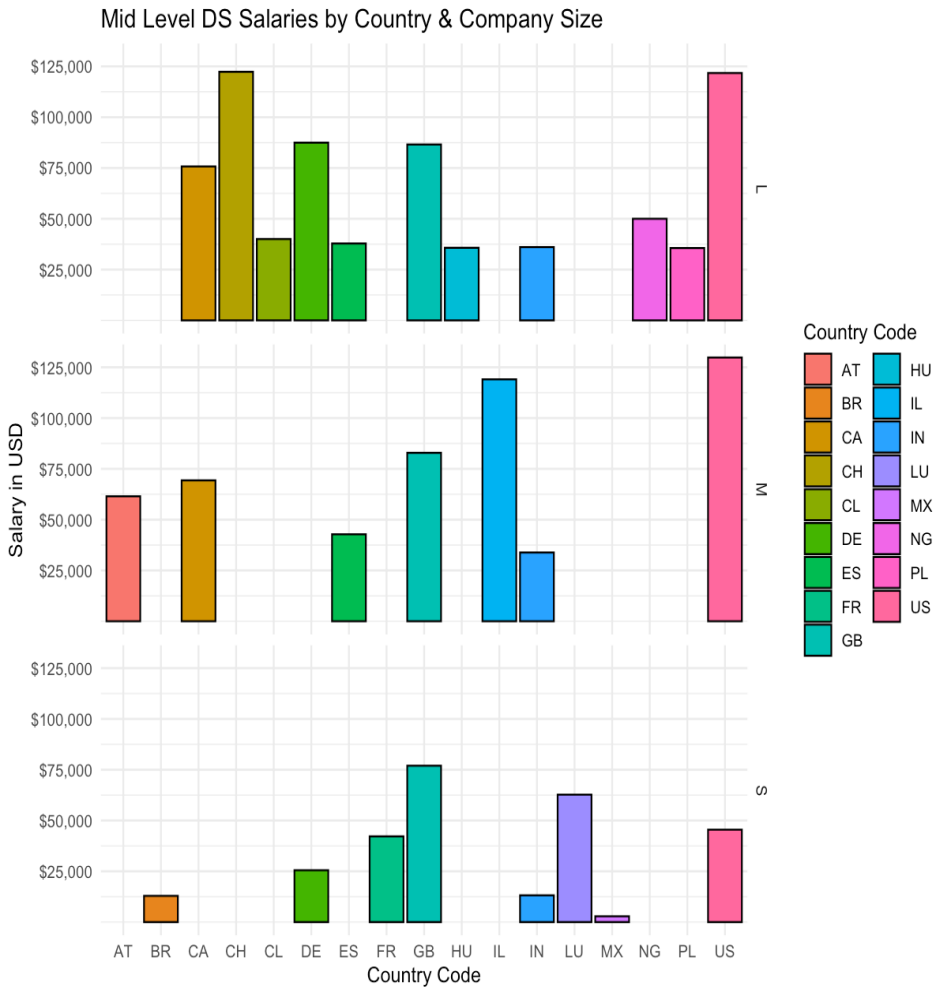


Entry Level Salary – Ranges

We have now focused our analysis on examining how company size - Large (L), Medium (M), and Small (S) - impacts the salaries of EN Data Scientists, contrasting the compensation offered by US companies with that of offshore companies on a country-specific basis. It's evident that EN Data Scientists employed by S-M sized companies, such as ours, typically earn around or slightly below $100,000, consistent with the median salaries observed for EN positions in the US on our previous slide. The disparity between EN Data Scientists at L-sized companies compared to those at S and M sized companies is considerable and may stem from differences in workload distribution; larger companies likely distribute tasks more evenly, potentially resulting in reduced salaries. This comparison of salaries by company size across different countries allows us to draw these conclusions regarding salary ranges for EN candidates:

Size Origin	Salary Range
L	$55k - $65k
M	$70k - $85k
S	$85k - $100k





Mid Level Salary – Ranges

This data sample examines the difference in salaries by company size, but this time for MI Data Scientist roles across different countries. At first glance, it is clear to see the difference in salary ranges in US companies for MI roles when compared to EN roles. MI Data Scientists working at M-L US companies are making as much as up to $125,000. The same can be said for offshore companies as MI Data Scientists working at L offshore companies are earning salaries within the range of $75,000 - $120,000. Offshore M-size companies can be seen paying MI Data Scientists up to over $110,000 in one country and within the range $75,000 in other countries. However, S-sized US companies are paying MI Data Scientists significantly less for factors unidentifiable in data. But we can observe that S-size offshore companies are still paying Data Scientists salaries as high as $75,000. From these insights, my salary range recommendations for MI Data Scientists consists of:

Size Origin	Salary Range
L	$100 - 125k
M	$95k - $110k
S	$85k - $100k

Senior Level Salary – Ranges

We're now focused on salary distinctions based on company size for Senior-Level (SE) Data Scientist roles in both US and offshore companies. Given the demanding qualifications for these positions, the dataset is relatively smaller compared to Mid-Level (MI) and Entry-Level (EN) roles, resulting in a noticeable increase in salary range. Notably, SE Data Scientists in L and M sized US firms witness a $25,000 salary surge. However, no data is available for SE positions in S-sized US companies, suggesting potentially lower demand for such highly qualified professionals domestically. Additionally, offshore SE salaries exhibit wide variability, possibly influenced by economic factors and currency valuations. Despite the presence of outliers, it's imperative to incorporate these data points into our analysis. Regarding salary recommendations for SE Data Scientists, we'll prioritize the average SE salaries of US companies to ensure competitiveness for candidates with these credentials. Here are my suggested salary ranges for SE Data Scientists:

Size Origin	Salary Range
L	$130k - $150k+
M	$120K - $150K
S	NA