

CYBERSECURITY SALARY ANALYSIS

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I.INTRODUCTION

As the digital landscape evolves at an unprecedented pace, the demand for skilled cybersecurity professionals has reached new heights, making the field one of the most critical and dynamic sectors in today's technology-driven world. This salary analysis report delves into the intricate web of compensation structures within the cybersecurity domain, seeking to unravel the factors influencing remuneration trends. In an era where the stakes of cyber threats have never been higher, understanding the financial landscape of cybersecurity roles is paramount for both industry professionals and organizations aiming to attract and retain top talent. This report explores the diverse facets of cybersecurity salaries, encompassing roles ranging from ethical hacking to security analysis, shedding light on regional variations, industry-specific trends, and the impact of experience and certifications on compensation. By navigating through this comprehensive analysis, stakeholders can gain valuable insights into the evolving value of cybersecurity expertise in the contemporary workforce.

II. DATA PROCESSING

The data sourced from Kaggle was loaded into a python script to carry out preliminary tests on data. Profiling reports were made using **YDATA-PROFILING** and Pandas module was also used to carry out basic descriptive profiling of the data. It was found out that the data had 516 Duplicate rows.

Overview Alerts 7 Reproduction	
Dataset statistics	
Number of variables	11
Number of observations	4501
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	516
Duplicate rows (%)	11.5%
Total size in memory	386.9 KiB
Average record size in memory	88.0 B
Variable types	
Categorical	6
Text	3
Numeric	2

But carrying out the same procedure in Excel gave different results. The count of duplicated values in Excel stood over 1000+ rows. Considering the assumption that duplicated values could be standard salaries, the analysis was carried on the original dataset only and not the cleaned dataset.

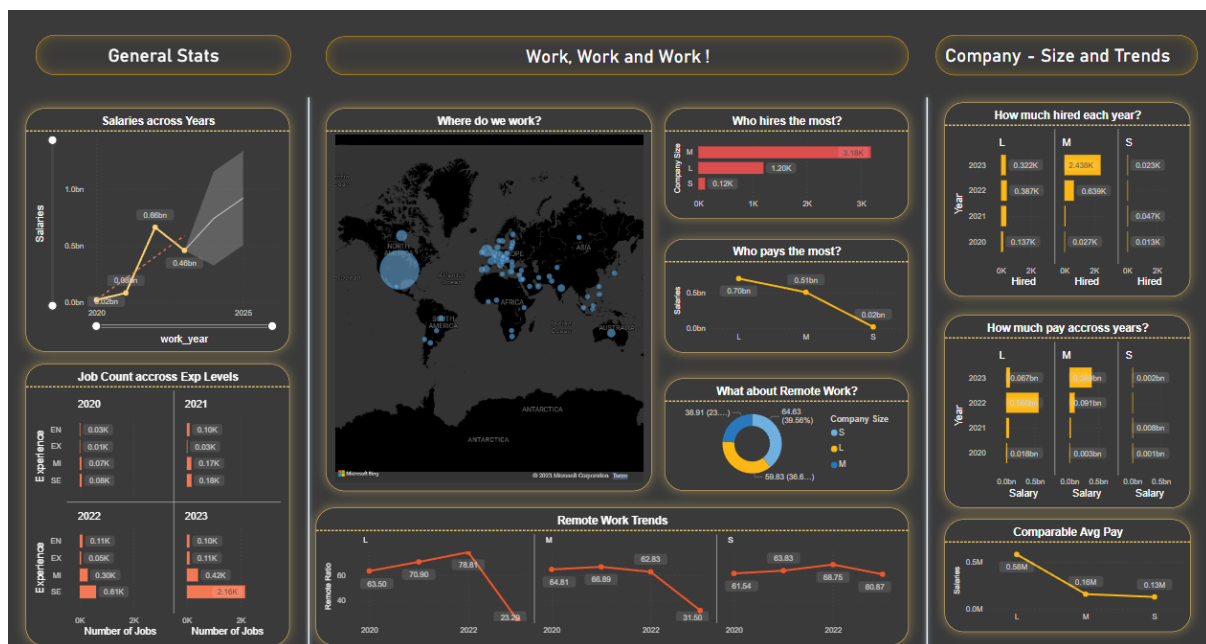
III. OBJECTIVE ELUCIDATION

The following objectives/ Insights to be gained were chalked out at the beginning of the analysis:

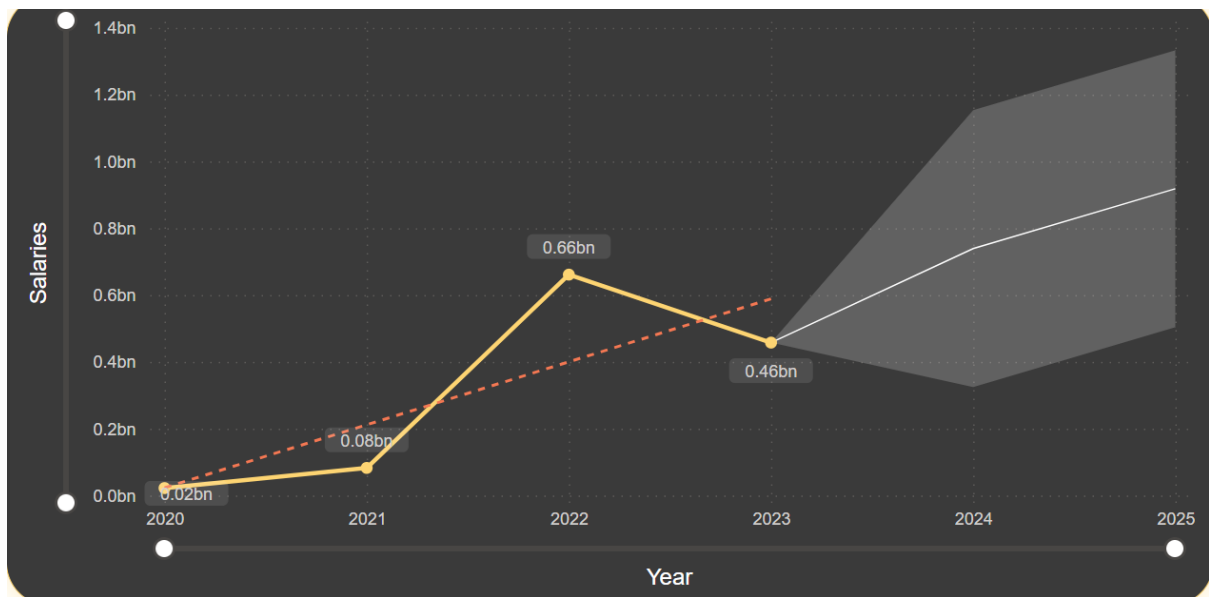
- A. Yearly increase in salaries and their comparison with the inflation rate.
- B. Experience Level vs Employment type insights.
- C. Insights on company sizes and locations.
- D. Company Sizes vs Salary paid
- E. Company sizes vs Remote ratios.
- F. Insights on Job titles and salaries and many others.

IV. RESULTS OF ANALYSIS:

A dashboard was created using Power BI in 1020*1880 layout. The dashboard was divided into three parts.



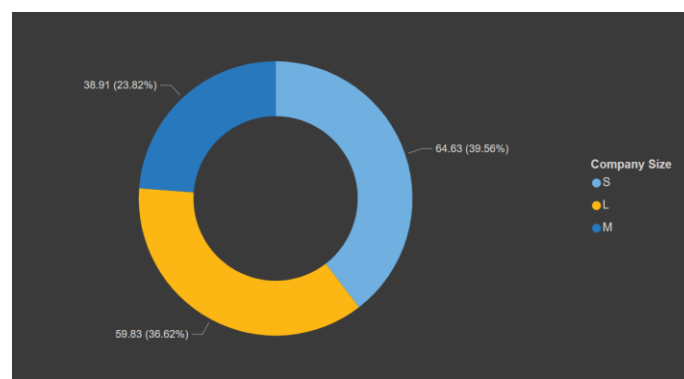
[A] GENERAL SALARY TRENDS



The salaries across all domains seemed to be increasing even after the effects of COVID. The impact of recession could be seen in the Year 2023, where the total salaries paid in this domain decreased from \$0.66 Billion USD to 0.46 Billion USD , showing a **decrease of 30.3 %** in a given year.

The salaries paid in this domain has shown excellent growth in the year 2021-2022, showing an **increase of 725%**. The salaries are expected to increase in the upcoming years [Ref – Moore’s Law extrapolation]

[B] REMOTE WORK TRENDS



The average of remote work ratio across all company sizes was computed. **A value of >50% indicates higher possibility of allowing remote work.** It can be concluded that **Small sized firms offer the highest remote jobs**, followed by Larger Sized companies and then Mid-Sized firms.

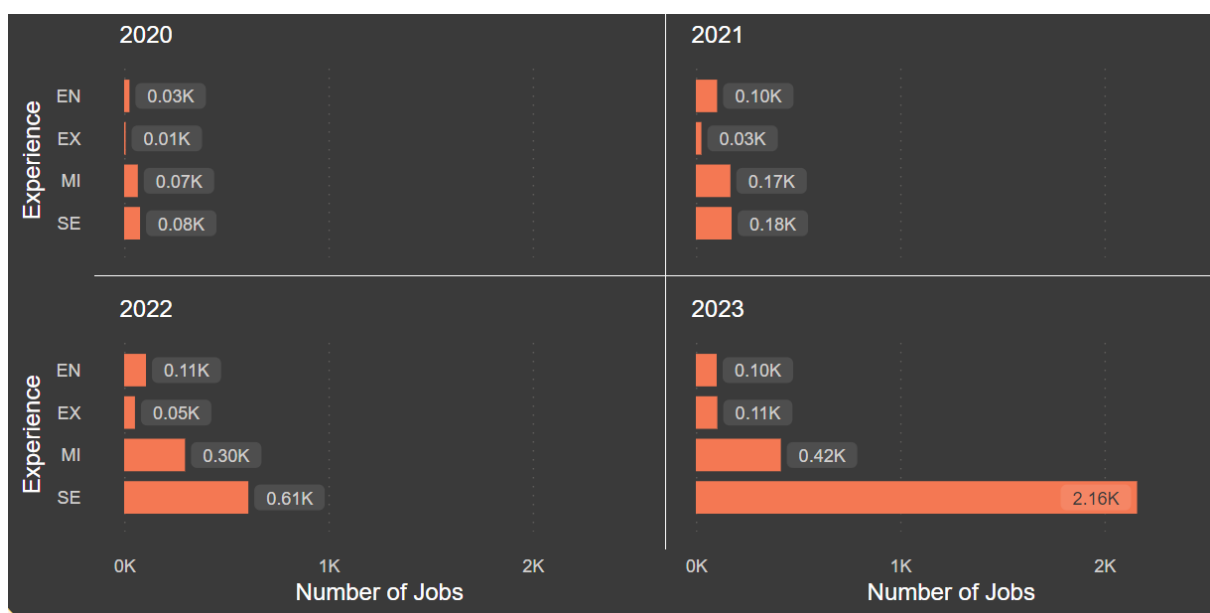


It can also be seen that the acceptance of remote work was increasing over the years for large and small sized companies, but suddenly decreased to an all time low in 2023. **Small sized firms** showed the lowest drop in 2023, indicating that small sized firms could be lenient to remote work even in the times of recession in the domain of cybersecurity.

[C] HIRING ACROSS EXPERIENCE LEVELS

It can be concluded that senior level positions have the highest demand amongst all experience levels.

The demand for Entry Level positions showed a slight decrease in the year 2023, while the demand for Executive Level positions has been at least doubling every year.



[D] HIRING TRENDS AND SALARIES

The following Q&A answers a lot of questions:

1. Who hires the most?

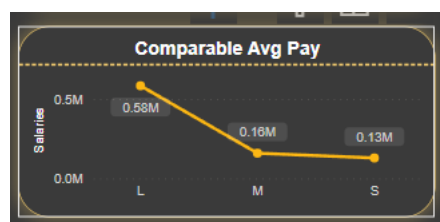
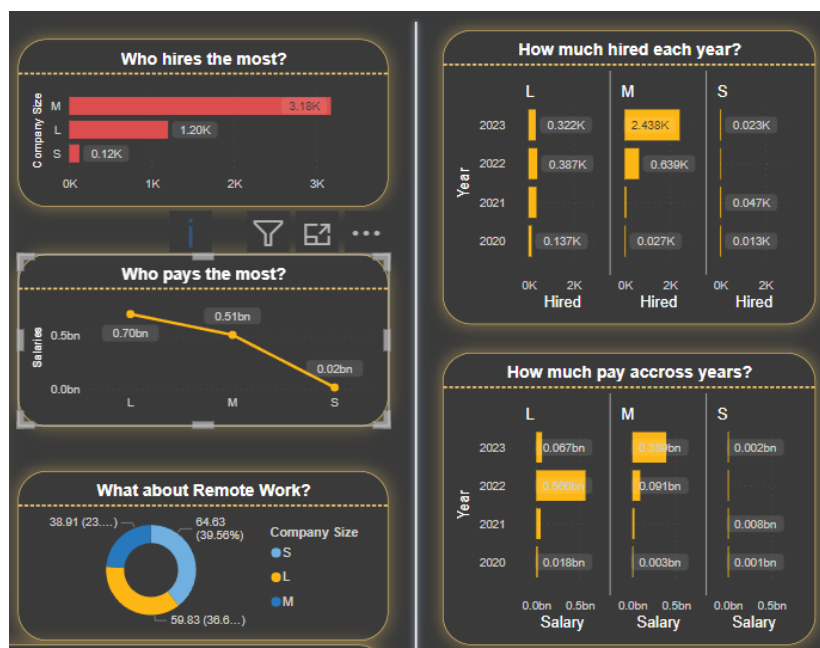
A: Medium Sized firms have hired 3100+ candidates over the years, Large sized firms have hired 1200 Candidates and Small sized firms have hired only 123 candidates. Thus, **Medium sized firms have hired the most number of people**

2. Who pays the most?

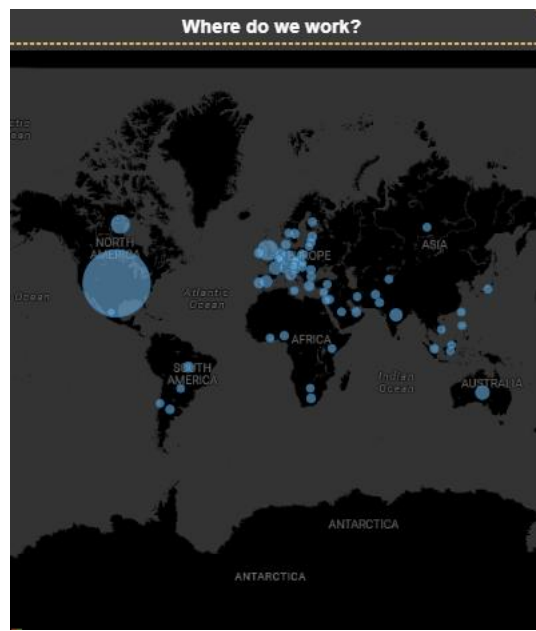
Large sized firms have given out over \$0.70 Billion in payouts, followed by Medium sized firms at over \$0.50 Billion and small sized firms at \$0.02 Billion. Thus, Large sized firms pay the most.

BUT,

The average pay is slightly similar for Medium and Small sized firms [\$160,000- Medium and \$130,000 – Small, \$580,000 - Large].



3. Where do people work?



United States has the largest jobs in this domain.

Security Engineer, Security Analyst and DevSecOps engineer have the highest number of hires in the years.

CONCLUSION:

Thus, basic analysis on salaries and trends in the Cybersecurity domain has been carried out.

LINKS

[AUTHOR PROFILE](#)

[PORTFOLIO](#)

[GITHUB REPO](#)

[DATASET ON KAGGLE](#)

[POWERBI DASHBOARD LINK](#)