Data Science Salary Insights and Excel Dashboard

Objective:

The objective of the Data Science Salary Insights and Excel Dashboard is to provide a comprehensive and visually appealing analysis of salary trends in the field of Data Science. The project aims to gather, process, and present relevant salary data to help professionals

Key Insights:

Explore the dataset to visualize the distribution of small, medium, and large companies hiring Data Science professionals. This analysis will reveal the landscape of company sizes in the Data Science job market.

Dataset Description:

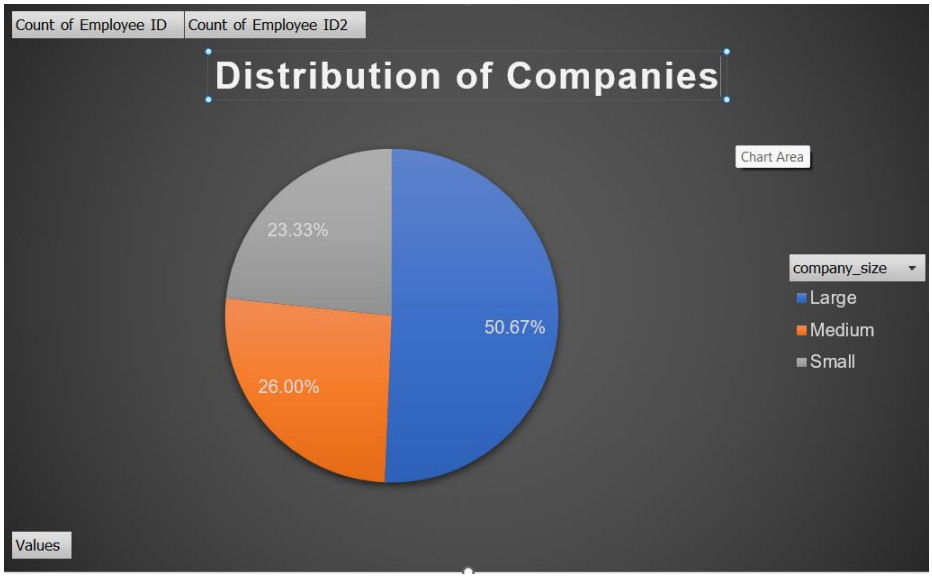
The dataset comprises marketing campaign data with columns including:

Index: A unique identifier for each record in the dataset.
work_year: The year of reporting.
experience_level: The level of professional experience of the employee.
employment_type: The type of employment (full-time, part-time, contract, or freelance.)
job_title: The specific position held by the employee within the domain.
salary: The reported salary of the employee.
salary_currency: The currency in which the salary is denominated.
salary_in_usd: The salary amount converted to USD (United States Dollar).
employee_residence: The location where the employee resides or works from.
remote_ratio: The proportion of remote work allowed in the job.
company_location: The location of the organization where the employee is employed.
company_size: The size of the company in terms of the number of employees.

Key Metrics and Visualizations:

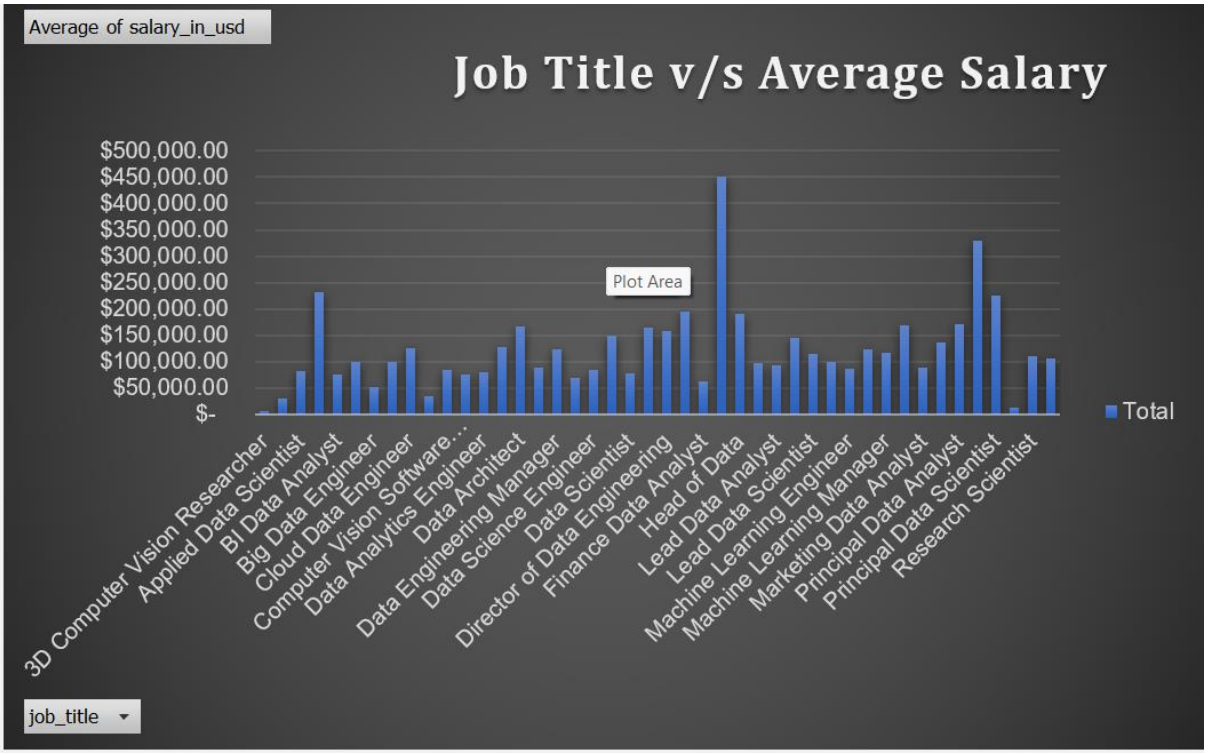
- **Distribution of Companies:**

Use a pie chart to display the distribution of companies based on their sizes (small, medium, large). Label each segment with the corresponding percentage.



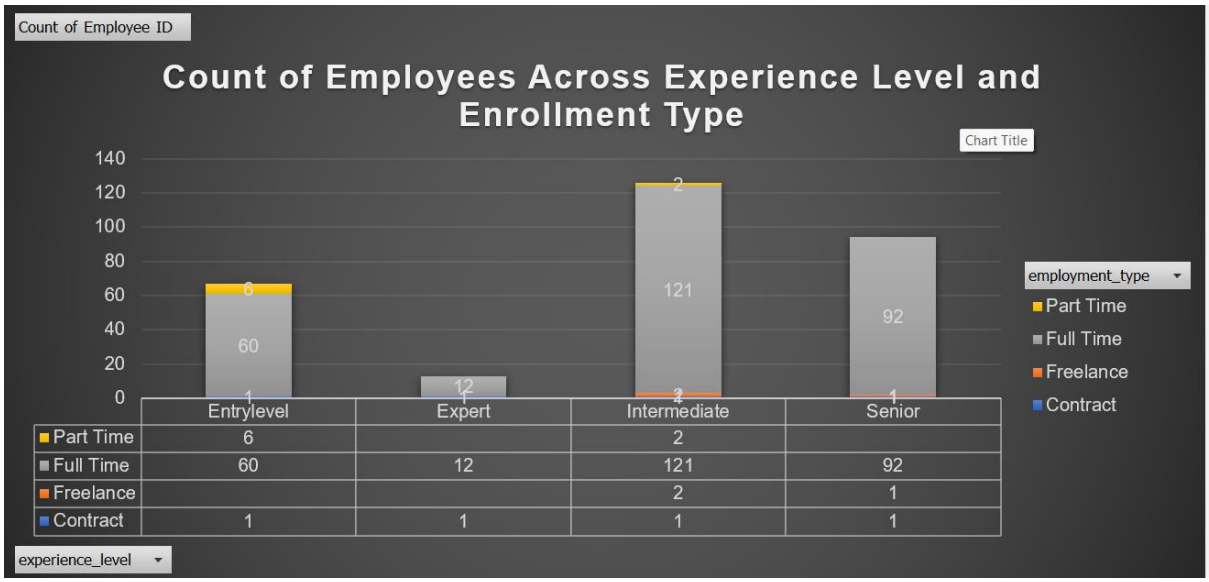
- **Job Title vs. Average Salary:**

Use a bar chart to compare job titles against their corresponding average salaries. Identify job roles that offer higher remuneration in the Data Science industry.



- **Count of Employees Across Experience Level and Enrollment Type:**

Create a stacked bar chart to represent the count of employees based on experience levels and enrollment types. Uncover patterns of workforce composition and assess hiring trends concerning experience and employment types.



- **Average Salary vs. Experience Level:**

Utilize a line chart to visualize the relationship between average salaries and experience levels. Understand how salaries evolve with increasing experience in Data Science.

Subjective Questions:

1. **How is the distribution of company sizes in the Data Science job market? Are certain company sizes more prevalent in hiring Data Science professionals?**

Ans :

The significant portion of the Data Science job market is dominated by large companies, which may have a substantial market power, higher revenue, or greater productivity.

About a quarter of the companies in the Data Science job market are medium-sized, indicating a balance between flexibility, efficiency, and growth potential.

Less than a quarter of the companies in the Data Science job market are small, suggesting a lower prevalence of companies with a smaller number of employees. This may imply a lower market share, profitability, or innovation for these companies.

2. **Which job titles command higher average salaries in the Data Science field? Can we identify specific roles that offer more competitive compensation?**

Ans :

Job titles with higher average salaries : Machine Learning Engineer and Principal Data Scientist have the highest average salaries in the data science field, with about $400,000 and $350,000 respectively.

Roles with more competitive compensation : Besides the above two roles, other roles that offer more competitive compensation are Data Scientist, Senior Data Scientist, and Data Engineer, with average salaries ranging from $200,000 to $250,000.

3. **Are there differences in employee counts based on experience levels and enrollment types? Does the hiring trend favor full-time or part-time employees at different experience levels?**

Ans : Full-Time Dominance : Full-Time employees make up the majority of the workforce in data science, with more than 280 out of 300 employees being full-time.

Entry-Level Gap : Entry-level has the largest gap between full-time and part-time employees, with 60 full-time employees and only 6 part-time, no freelance or contract workers.

Expert Level Diversity : Expert level has the most diverse distribution of employment types, with one each for part-time, freelance, and contract, but still a smaller count of full-time employees (12).

Intermediate and Senior Levels : Intermediate and senior levels have similar patterns, with full-time employees dominating (121 and 92 respectively) and minimal representation from other employment types (two each for intermediate and one each for senior).

4. **How do average salaries vary with experience levels in Data Science? Is there a clear correlation between experience and earning potential?**

Ans :

Entry-Level Lowest : Entry-level professionals earn the least, with an average salary of about $100,000.

Expert-Level Highest : Expert level has the highest average salary of about $750,000, which is more than seven times the entry-level salary.

Intermediate and Senior Levels: Intermediate and senior levels have similar average salaries, around $500,000 and $450,000 respectively, which are lower than the expert level but higher than the entry-level.

Positive Correlation : There is a positive correlation between experience and earning potential, but it is not a strong one. Some fluctuations and variations in the average salaries at different experience levels.

Final Dash Board :

Use page zoom to 62% for better view of dashboard