

# **Data Science Salary Analysis Project**

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**Tools: ML, Python, SQL, Excel**

## 1. Introduction

This project analyzes data science job salaries across various roles, experience levels, and locations. The dataset includes information such as work year, company size, remote ratio, employment type, salary, and salary in USD.

## 2. Dataset Overview

- Rows: 607
- Columns: 12
- Source: Data Science Job Salaries dataset
- Key Columns: work\_year, experience\_level, employment\_type, job\_title, salary\_in\_usd, remote\_ratio, company\_size, etc.

## 3. Tools Used

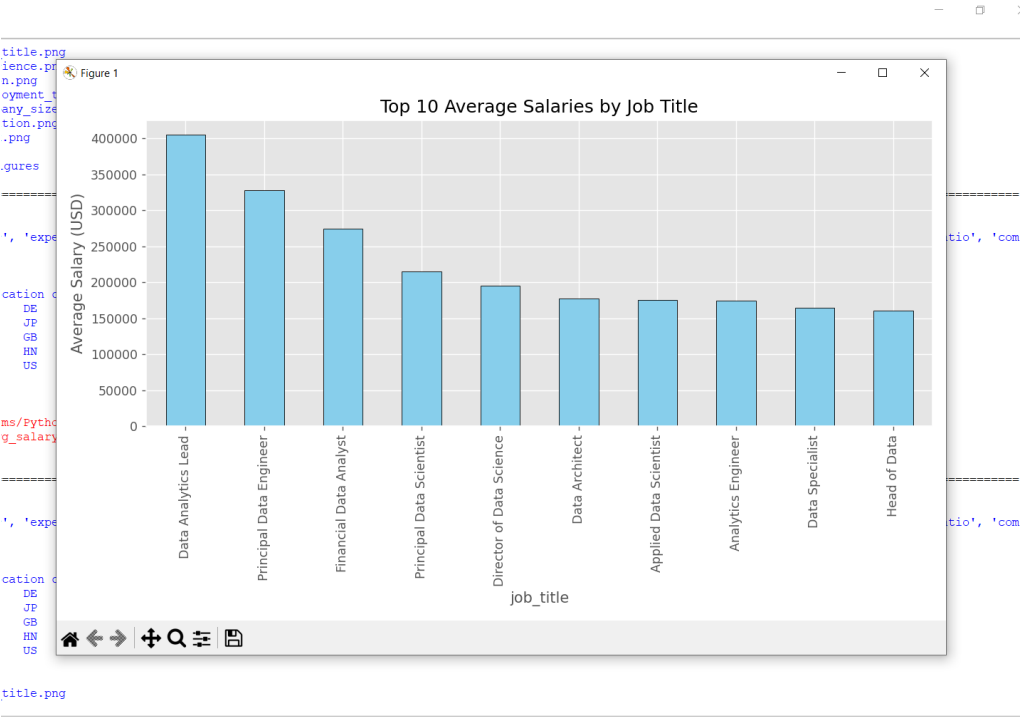
- Python for data processing and visualization
- pandas for data manipulation
- matplotlib for static graphs
- pathlib & os for file handling

4. Analysis & Visualizations

4.1 Average Salary by Job Title

Description: Bar graph showing the average salary for different job titles in USD.

Top 10 Average Salaries by Job Title



4.2 Salary Distribution by Experience Level

Description: Box plot showing salary spread for different experience levels.

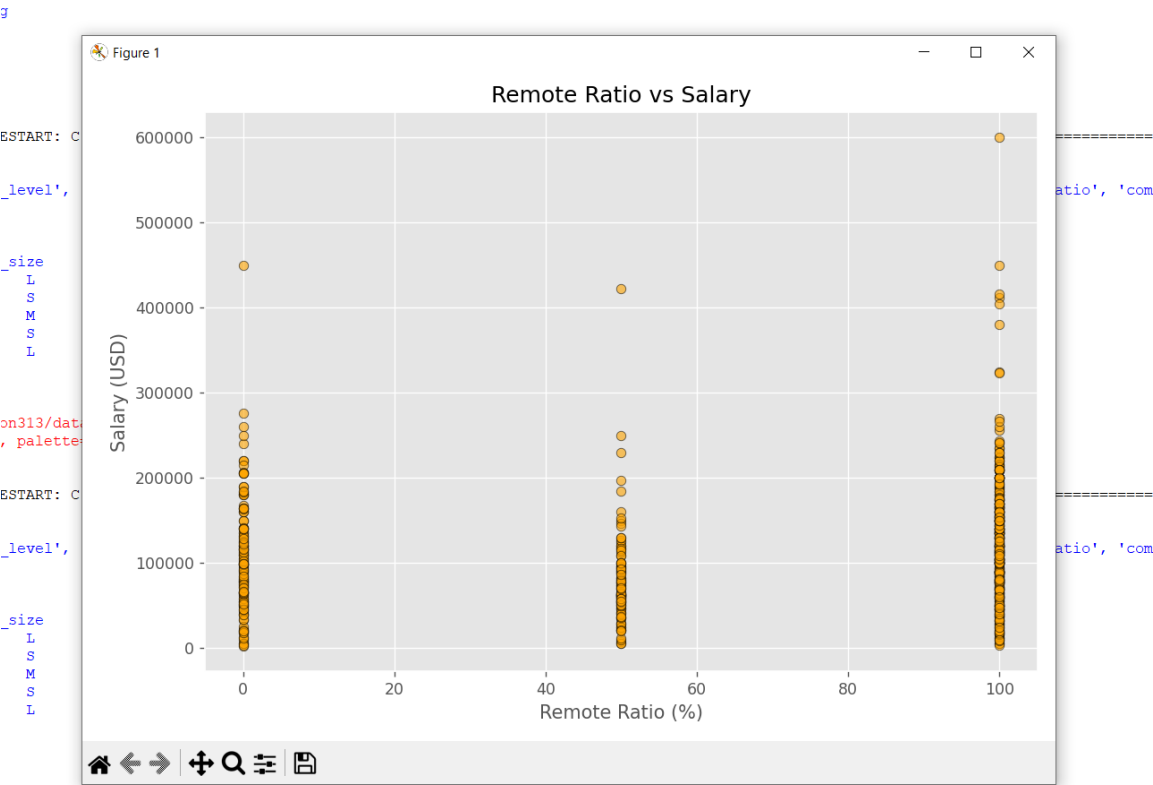
Salary Distribution by Experience Level



4.3 Remote Ratio vs Salary

Description: Scatter plot showing relationship between remote work ratio and salary in USD.

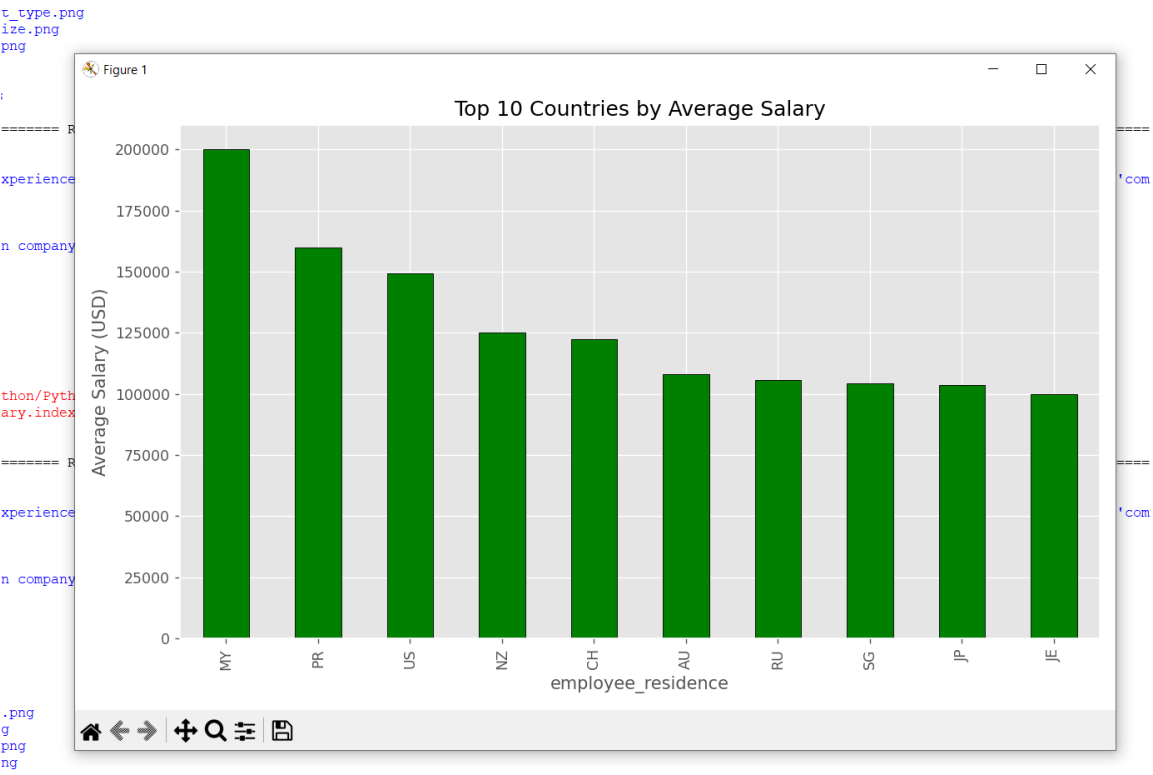
Remote Ratio Vs Salary



4.4 Average Salary by Country

Description: Bar graph comparing the average salaries by employee residence country.

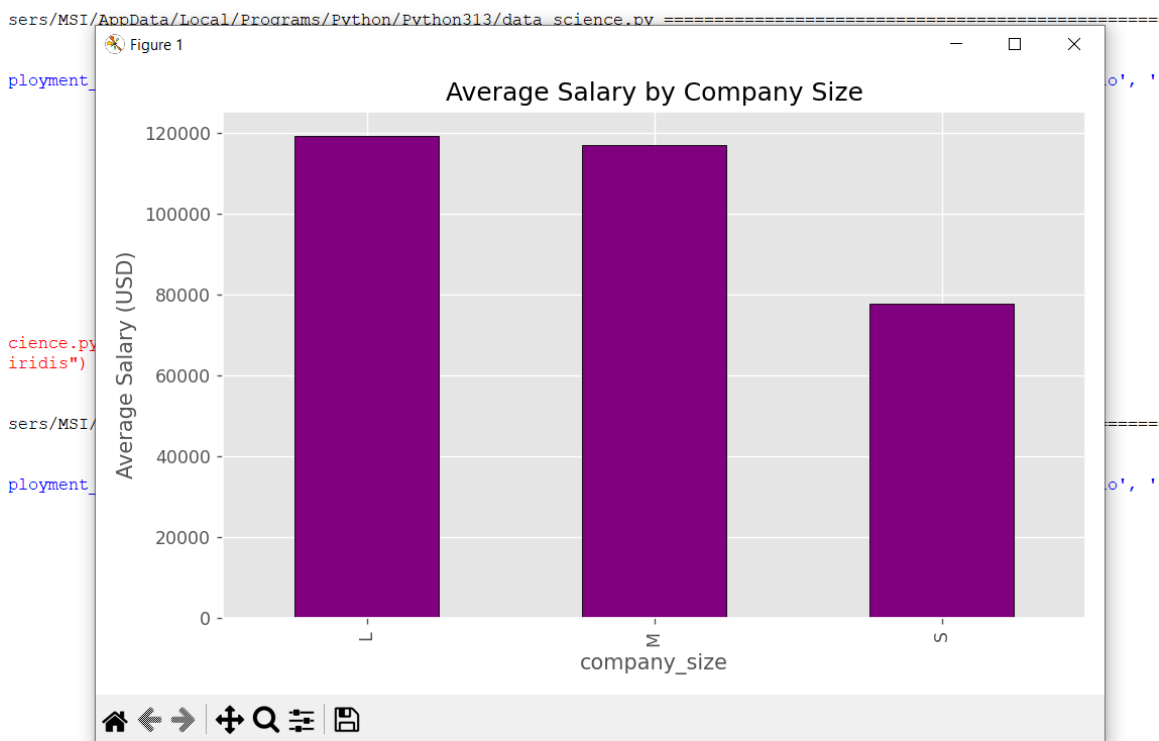
Top 10 Countries by Average Salary



#### 4.5 Company Size vs Salary

Description: Bar chart showing how company size impacts average salaries.

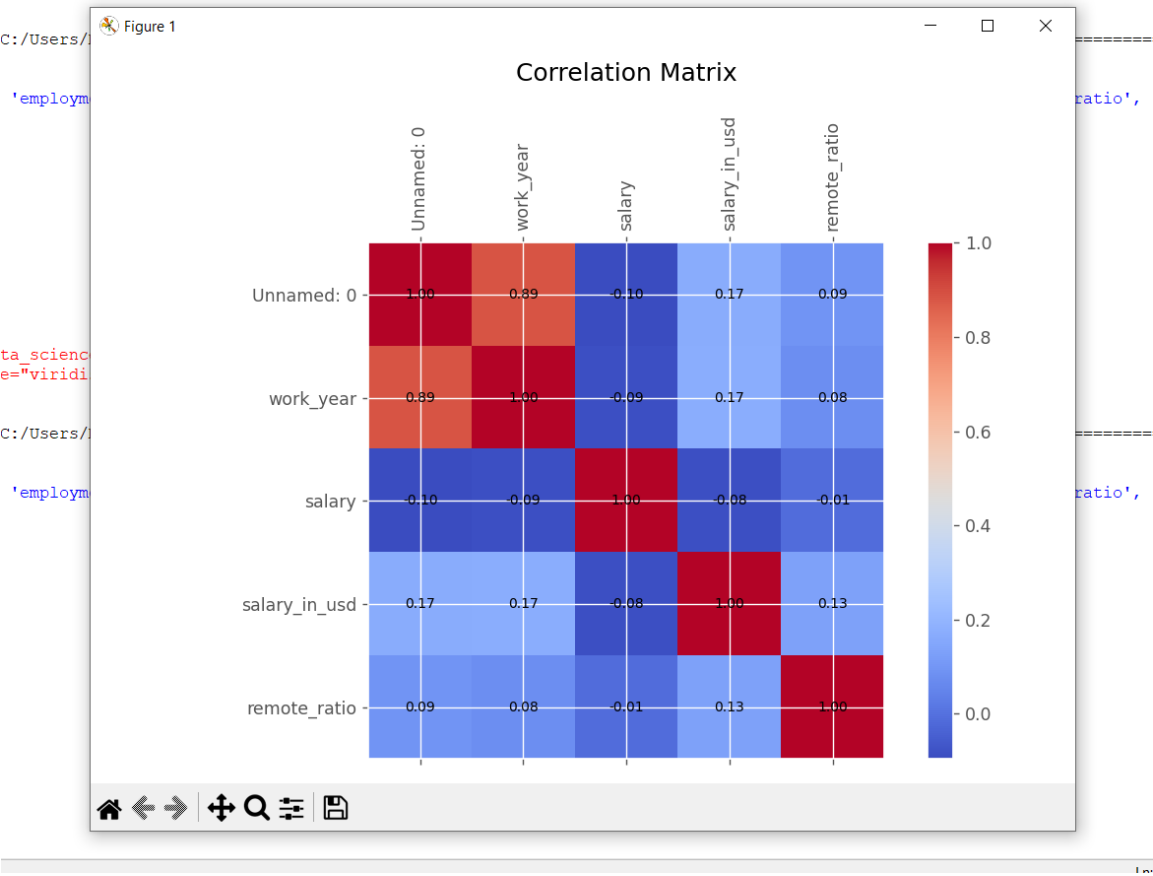
### Average Salary by Company Size



4.6 Correlation Heatmap

Description: Heatmap showing correlation between numeric features like salary, remote ratio, etc.

Correlation Matrix



5. Conclusion

This analysis shows how job title, experience level, location, company size, and remote ratio impact salaries in the data science field. It can help job seekers understand market trends and guide companies in creating competitive salary structures.