

Data Visualization: Assignment 4

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Design

Dashboard name and purpose

Title: AI and Data Science Salaries

Purpose: The purpose of the "AI and Data Science Salaries" dashboard is to provide an interactive platform for exploring global salary trends in AI, ML, and Data Science. It helps users:

1. **Make Informed Career Decisions:** Understand salary expectations based on experience, job title, and location.
2. **Support Employers and Recruiters:** Benchmark salaries to ensure competitive compensation.
3. **Facilitate Geographic Comparisons:** Compare salaries across different countries.
4. **Enhance Data Transparency:** Provide accessible, anonymized salary data for public use,

Tasks solved using the dashboard

1. Data Filtering and Interactive Controls:

- Users can filter salary data based on experience level, employment type, remote work ratio, and company size using interactive drop-down menus.
- Users can also filter by job title for specific visualizations.

2. Salary Distribution:

- A histogram visualizes the distribution of salaries in USD, allowing users to see the spread and concentration of salaries within the selected filters.

3. Detailed Data Table:

- A table displaying the entire dataset with interactive features like sorting and filtering, providing detailed views of the salary data.

4. Experience Level Analysis:

- A boxplot showing the distribution of salaries by experience level, providing insights into how salaries vary with experience.

5. Employment Type Analysis:

- A bar chart showing the average salary by employment type, helping users understand how employment type affects salary.

6. Top Countries with Highest Salaries:

- A line plot that highlights the top 10 countries with the highest average salaries for a selected job title, providing geographical salary insights.

7. Gauge Metrics for Average and Median Salaries:

- Gauges displaying the average and median salary for a selected job title, offering a quick summary of central tendency measures.

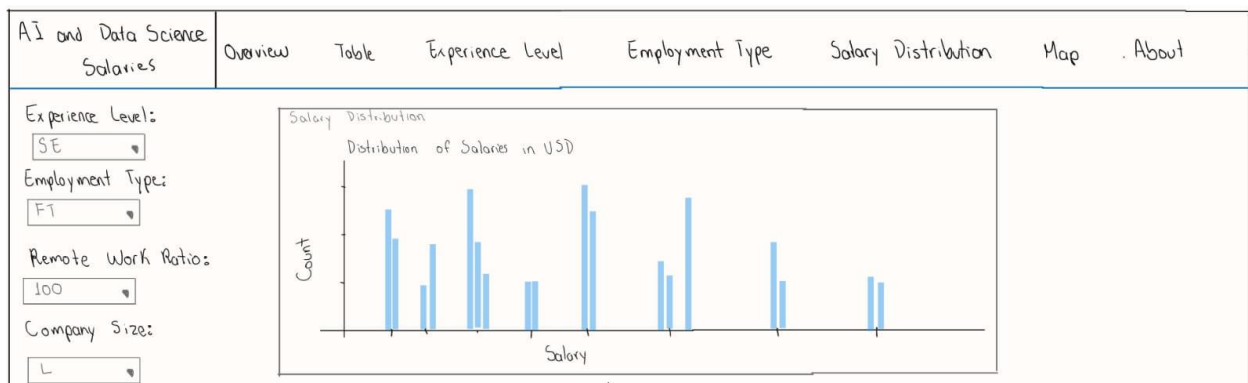
8. Geographical Salary Distribution Map:

- An interactive map showing average salaries by country for a selected job title, with circle markers sized by average salary, allowing users to visualize geographical salary differences.

9. Dataset Description:

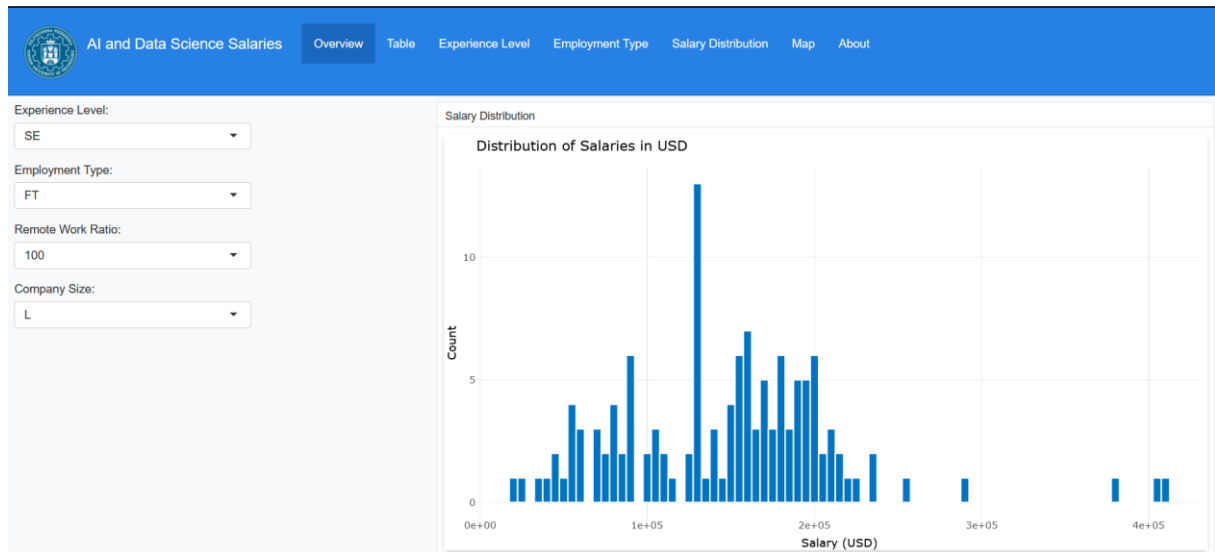
- A detailed description of the dataset columns, which provides context and helps users understand the data structure and the meaning of each variable.

Sketches



Implementation

Screenshots



AI and Data Science Salaries

Overview Table Experience Level Employment Type Salary Distribution Map About

Show 10 entries

Search:

	work_year	experience_level	employment_type	job_title	salary	salary_currency	salary_in_usd	employee_residence	remote_ratio	company_location	company
1	2024	SE	FT	Data Management Analyst	172000	USD	172000	US	0	US	M
2	2024	SE	FT	Data Management Analyst	75600	USD	75600	US	0	US	M
3	2024	MI	FT	Data Management Manager	193000	USD	193000	US	0	US	M
4	2024	MI	FT	Data Management Manager	84600	USD	84600	US	0	US	M
5	2024	MI	FT	Data Management Specialist	123000	USD	123000	US	0	US	M

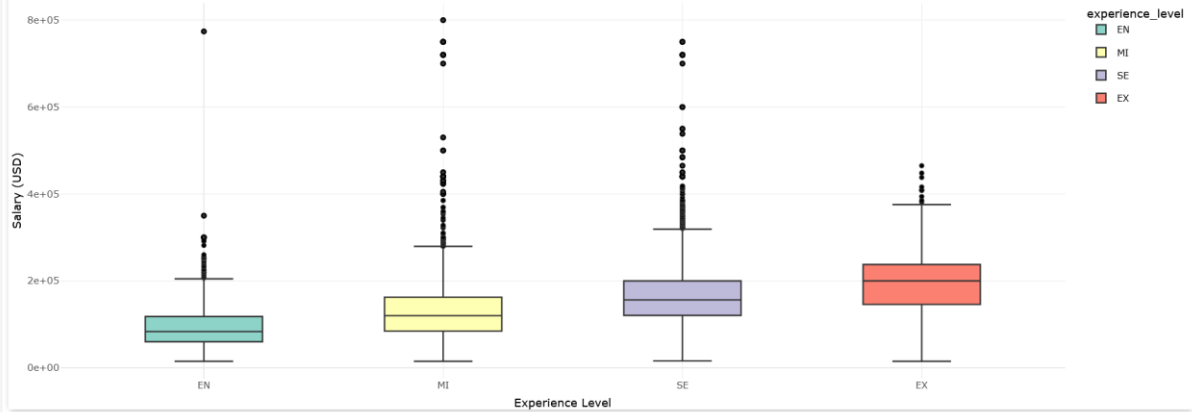
Data

Showing 1 to 10 of 19,635 entries

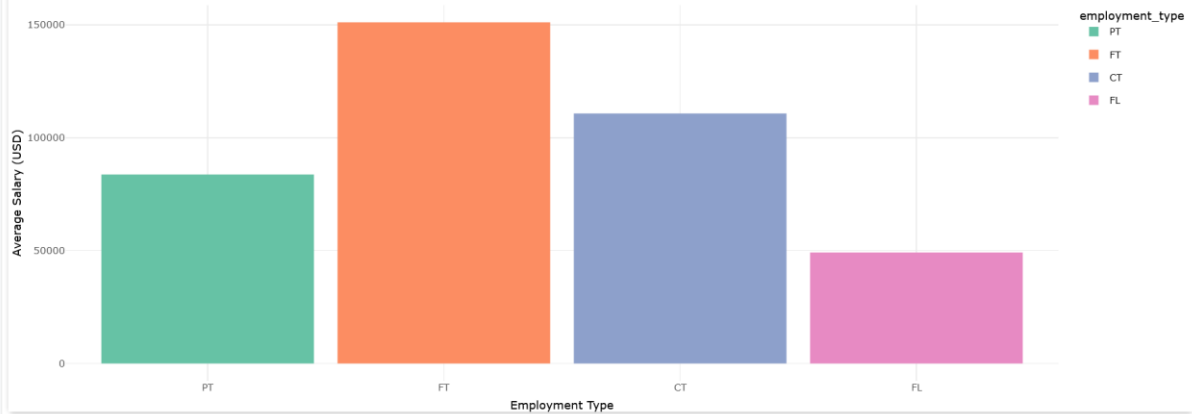
Previous 1 2 3 4 5 ... 1,964 Next



Salary by Experience Level



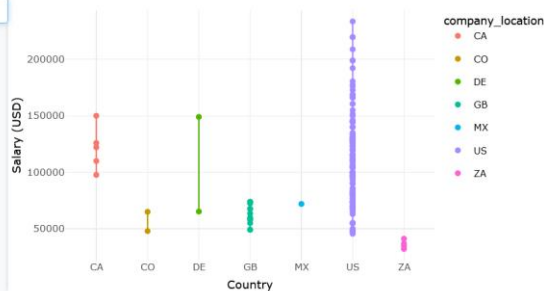
Average Salary by Employment Type



Job Title:

Data Manager

Top 10 Countries with Highest Salaries

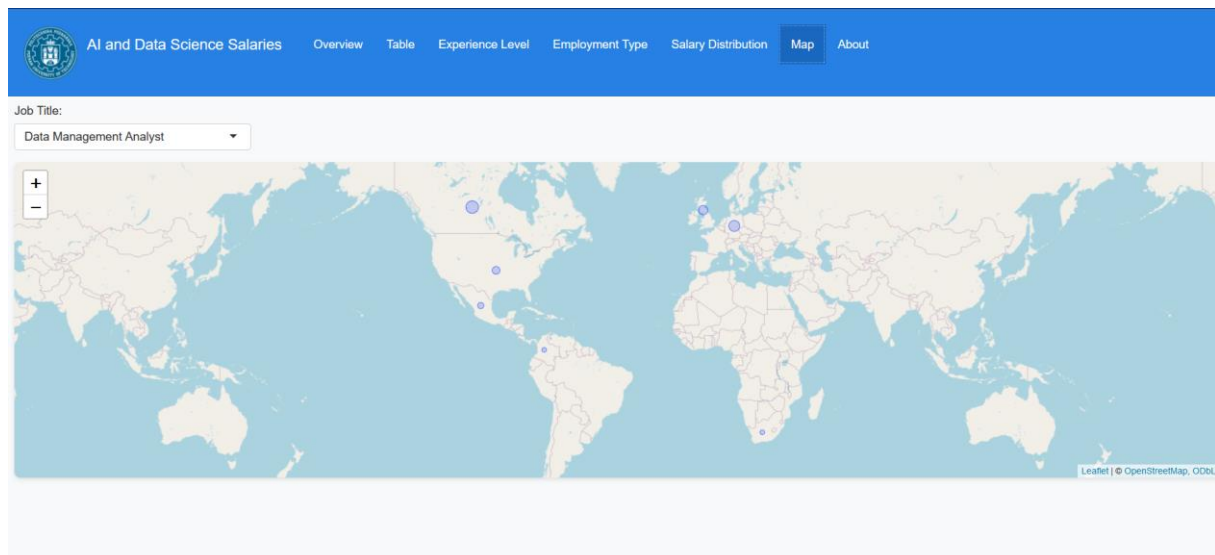


Average Salary



Median Salary





This website anonymously gathers salary data from professionals worldwide in the fields of AI, ML, and Data Science, making the information publicly accessible for anyone to use, share, and explore.

The main objective is to provide data that offers better insights into global salary trends. This helps new entrants, seasoned professionals, hiring managers, recruiters, startup founders, and individuals considering a career change make well-informed decisions.

The dataset includes 11 columns with the following details:

- **work_year:** The year in which the salary was paid.
- **experience_level:** The job experience level during the year, categorized as:
 - **EN:** Entry-level / Junior
 - **MI:** Mid-level / Intermediate
 - **SE:** Senior-level / Expert
 - **EX:** Executive-level / Director
- **employment_type:** The employment type for the role, including:
 - **PT:** Part-time
 - **FT:** Full-time
 - **CT:** Contract
 - **FL:** Freelance
- **job_title:** The job title during the year.
- **salary:** The total gross salary amount paid.
- **salary_currency:** The currency of the salary paid, represented as an ISO 4217 currency code.
- **salary_in_usd:** The salary converted to USD, based on the average exchange rate for the respective year via fxdata.foorilla.com.
- **employee_residence:** The primary country of residence of the employee during the work year, represented as an ISO 3166 country code.
- **remote_ratio:** The proportion of work done remotely, categorized as:
 - **0:** No remote work (less than 20%)
 - **50:** Partially remote/hybrid
 - **100:** Fully remote (more than 80%)
- **company_location:** The country of the employer's main office or contracting branch, represented as an ISO 3166 country code.

Github:

<https://patrick102.shinyapps.io/flexdashboard/>

Link to live demo:

<https://github.com/patrickmolina1/Dashboard>