

Data science Job analysis:

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Tools used: Power BI, Excel and SQL.

Year- 2024

Data science jobs analysis:

- **Objective:**

- Create a dashboard showcasing insights of the global data science market, including skills demand and salary trends, using datasets from 2020-2024.

- Answer the Questions Mentioned below

- **Questions to be answered:**

highest paid salary out of those job roles?(hint: job title, avg of salary, bar chart)

most famous job category?(job category, job title, pie chart)

skills required for their respective job titles?(hint: add slicer for job category and table for skills, tools)

trend and forecast analysis for salary (2020-2024)?

- **Materials:**

- Two datasets with attributes:

- Work year, job title, job category, salary details, currency, employee and company location, experience level, employment type, and company size.
- Mail "dhanushgoku997@gmail.com" for the Dataset.

- **Data Formatting:**

- Harmonize data formats across datasets before integration.
- Employ Excel for formatting and export to Power BI for visualization.
-
- **Data Cleaning:**
 - *Added a column “job_category” to (20-24 DS dataset)
 - *re-arranged the columns for better clarity
 - *added a empty column named “job_category”
 - *using chatgpt i mapped the respective job_titles to it's job_category
 - *using xlookup on Excel i auto-populated the job_category
 - *using chatgpt and xlookup i replaced the iso codes with country names on employee_residence and company_location.
 - *replaced the Employment_type from “FT” to “Full-time”
 - *Replaced the work_setting from “100,50,0” to “Remote, Hybrid, In-person)
- **Final Combined Dataset:**
 - Consists of 14 columns and 24,195 rows.
 - Provides a comprehensive view of the global data science landscape for analysis and visualization.

Data modelling:

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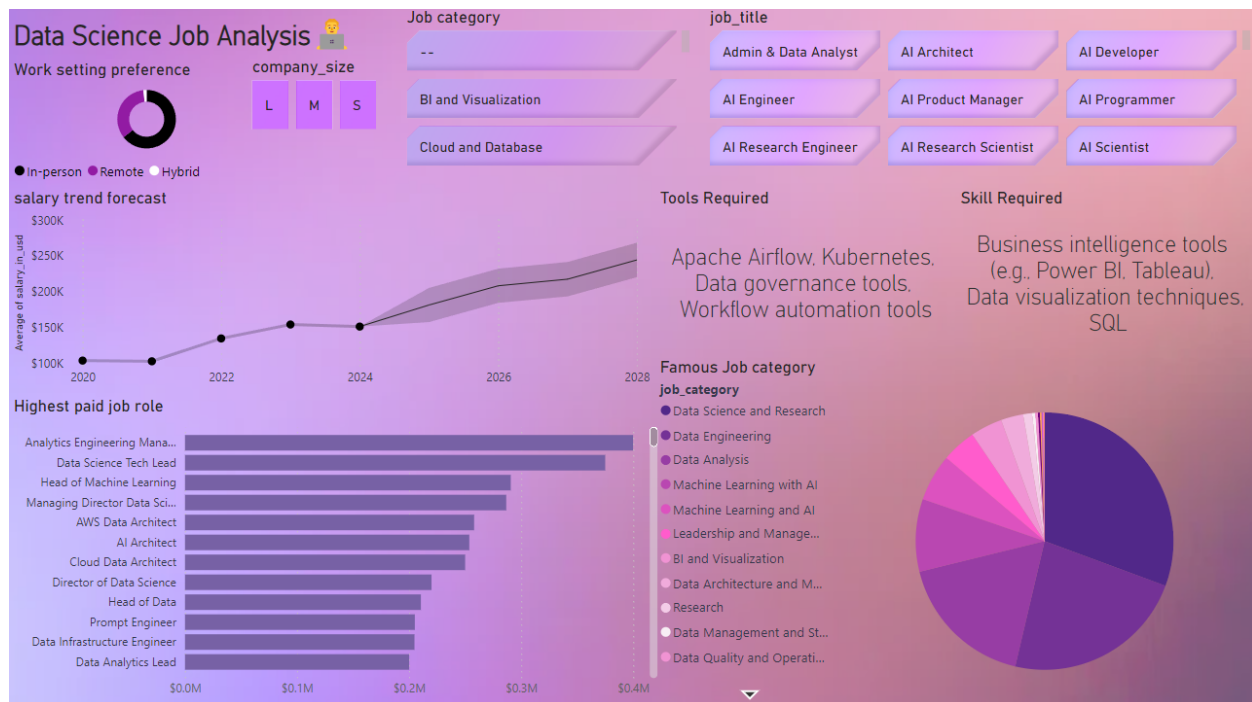
*Replaced the work_setting from “100,50,0” to “Remote,Hybrid,In-person)

- **Created** a manual relationship between multiple tables.
- **Created Group By Functions:**
 - Separate skills and tools required.
 - Find average salary by country.
- **Disabled Edit Interaction for Certain Features:**
 - Highest paid job role.
 - Famous job category.
- **Questions Answered:**
 - Highest Paid Salary out of Job Roles:
 - Analytic Engineering Manager is the highest paid job role, followed by Data Science Tech Lead.
 - Most Famous Job Category:
 - Data Science and Research is the most famous category, followed by Data Engineering.
 - Skills Required for Job Titles:
 - Displayed required skills and tools for specific job categories using a card.
 - Trend and Forecast Analysis for Salary (2020-2024):
 - Identified salary trends and forecasted salaries for 2025-2028. For example, the salary for Data Analysts rose sharply from 2020 to 2022, remained stable until 2024, and is predicted to gradually increase till 2028.
 - Top 10 Highest Paid Countries:
 1. USA
 2. Canada
 3. Australia
 4. Puerto Rico
 5. New Zealand

6. Saudi Arabia
 7. Qatar
 8. Israel
 9. Malaysia
 10. China
- Expectations of Small Scale Companies Regarding Employee Presence:
 - Small scale companies prefer remote work for its cost-effectiveness and flexibility, while larger companies tend to prefer in-person work.
 - Highest Employment Type:
 - Full-time employment is the most common, followed by part-time and contract.
 - Job Prevalence Worldwide (Map):
 - Map visualization failed.

Data visualization:

Main dashboard:



Donut chart - work setting preference

Line chart - Salary trend forecast

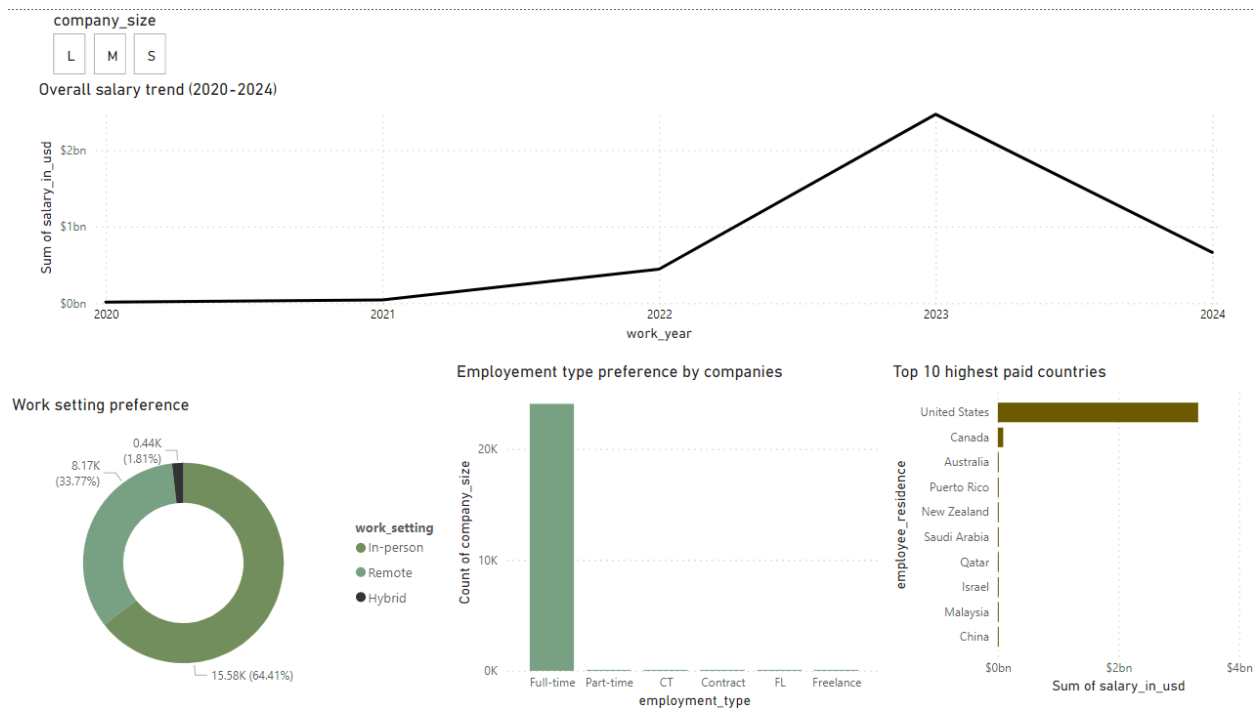
Bar chart - Highest paid job role

Cards - Tools, Skills required

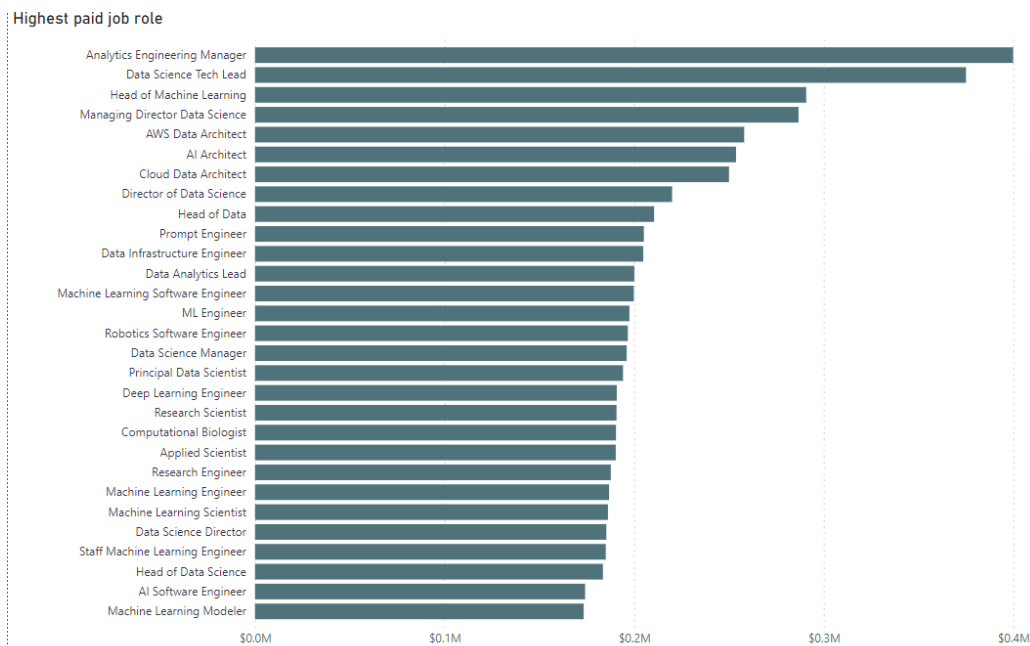
Pie chart - Famous job category

Slicers - Job category, job title, job category

salary x country and work place:



highest paid data job role:

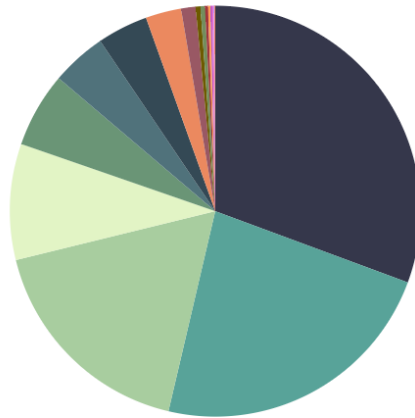


Most famous job category:

Famous Job category

job_category

- Data Science and Research
- Data Engineering
- Data Analysis
- Machine Learning with AI
- Machine Learning and AI
- Leadership and Management
- BI and Visualization
- Data Architecture and Modeling
- Research
- Data Management and Strategy
- Data Quality and Operations
- Data Analysis/Management
- Data Integration
- Data Operations
- Cloud and Database
- Natural Language Processing
- Robotics
- Computer Vision



job_title

Admin & Data Analyst
AI Architect
AI Developer
AI Engineer
AI Product Manager
AI Programmer
AI Research Engineer
AI Research Scientist
AI Scientist
AI Software Engineer
Analytics Engineer
Analytics Engineering Manager
Applied Data Scientist
Applied Machine Learning Engineer
Applied Machine Learning Scientist
Applied Research Scientist
Applied Scientist
Autonomous Vehicle Technician
AWS Data Architect
Azure Data Engineer
BI Analyst
BI Data Analyst
BI Data Engineer
BI Developer
Big Data Architect
Big Data Developer
Big Data Engineer
Business Data Analyst
Business Intelligence
Business Intelligence Analyst
Business Intelligence Data Analyst
Business Intelligence Developer

skills respective for their job titles:

job_category

Data Science and...	Machine Learning and AI
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job_title

AI Developer	AI Engineer	AI Scientist
Applied Machine...	Applied Machine...	Autonomous Vehicle...
Computer Vision...	Computer Vision...	Deep Learning...

<input type="checkbox"/> Entry-level
<input type="checkbox"/> Executive
<input checked="" type="checkbox"/> Mid-level
<input type="checkbox"/> Senior

salary trend forecast

