Code and create boot-camp Capstone project

DATA ANALYSIS: GROUP 5

OCTOBER, 2025

GROUP NAME:TEAM INFOSCOUT. GROUP TOPIC: DS JOB HR ANALYTICS

MEMBERS:

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JOB DESCRIPTION:

 The dataset represents job listings for Data Science and Analytics roles from multiple companies

The goal is to help the HR analytics team and career advisory units understand:

- What factors influence salary estimates and company ratings.
- Which industries and locations offer the best opportunities, and
- How company attributes like size, founding year, and ownership affect job prospects.

Proposed Solution Overview:



 Team Infoscout aims to clean and analyze the "DS Jobs dataset" using Excel and SQL to reveal key factors influencing salaries, ratings, job-trends, and more importantly to present insights visually.

Approach (SQL + Excel)

SQL: Cleaning +salary parsing + group aggregations.

EXCEL: Visualization + KPI dashboards+ interactive slicers.

Combined quantitative & visual story telling for HR decision making.

Row Labels	Average salary	Average rating	City ▼	Job count	Average salary
Startup	123774.19	4.21	Boston	24	122583.33
Established	123706.02	3.72	Chicago	22	121318.18
Mid_age	119337.13	3.95	New York	50	136680
Grand Total	366817.34	11.88	San Francisco	69	119224.64
			Washington	27	138555.56
			Grand Total	192	638361.71
Industry	▼ Sum of average_salar	Sum of avg_rating			
Accounting	124666.67	4.17	Industry	Average salary 🚽	Average rating 🔽
Advertising & Marketing	117608.7	3.8	Publishing	271500	4.7
Aerospace & Defense	132695.65	3.78	Health, Beauty, & Fitn	e 203750	4
Architectural & Engineering Services	154833.33	3.6	Food & Beverage Stor	e 183000	3.7
Banks & Credit Unions	127562.5	3.69	Hotels, Motels, & Res	183000	3.5
Biotech & Pharmaceuticals	122871.21	3.68	State & Regional Ager	183000	3.2
Cable, Internet & Telephone Providers	99500	2.9	Wholesale	177000	2.63
Chemical Manufacturing	128166.67	3.37	Other Retail Stores	167333.33	3.67
Colleges & Universities	117833.33	3	Architectural & Engine	154833.33	3.6
Computer Hardware & Software	120219.3	4.24	Electrical & Electronic	145500	3.47
Construction	74750	3.4	Transportation Equipm	n 140000	4.6
Consulting	131052.63	3.91	Research & Developm	136205.88	3.87
Consumer Electronics & Appliances Sto	re 129500	3.5	Aerospace & Defense	132695.65	3.78
Consumer Products Manufacturing	119000	3.6	Video Games	132666.67	4.47
Department, Clothing, & Shoe Stores	107000	3.5	Express Delivery Servi	ic 132000	3.2
Electrical & Electronic Manufacturing	145500	3.47	Federal Agencies	131437.5	3.97
Energy	110800	3.7	Consulting	131052.63	3.91
Enterprise Software & Network Solution	n: 119918.6	4.09	Consumer Electronics	{ 129500	3.5

Executive Summary

Average Salary \$123,663.69

Average Rating 3.8



500 + Data Science & Analytics job listings analysed

Objective: understand salary & ratings, top industries & location

Average salary ≈ \$123k

Average rating ≈ 3.8

Technology & Finance = best combination of pay + rating

Established firms pay ≈ 20 % more than start-ups

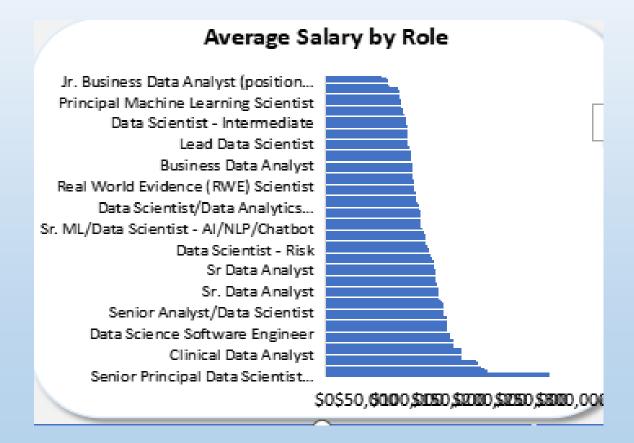
Problem 1:

Question: Which job tittles have highest average salary estimates?

Top 5 ROLES by Average Salaries:

- 1)Senior Data Scientist- \$271k
- 2) Machine Learning Engineer- \$197k
- 3) Data Science Manager- \$188k
- 4)Data Engineer- \$164k
- 5)Data Scientist- \$154k

Chart



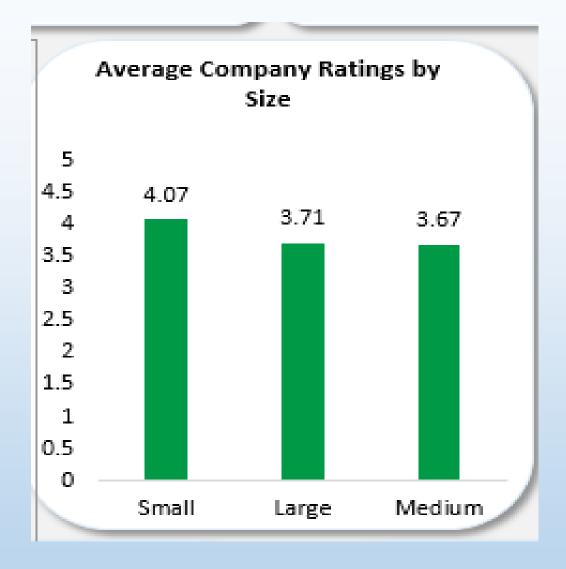
Problem 2:

Question: Do larger companies tend to have higher Glassdoor ratings? Company sizes vs Ratings:

Large Companies(>5000 Employees) _3.71

Medium Companies (500-5000 Employees)_3.67

Small Companies (<500 Employees)_4.07



Problem 3:

Question: Do larger companies tend to have higher Glassdoor ratings?

Industry & Sector Analysis

Publishing -

Health, Beauty, & Fitness -

Food and Beverages Stores

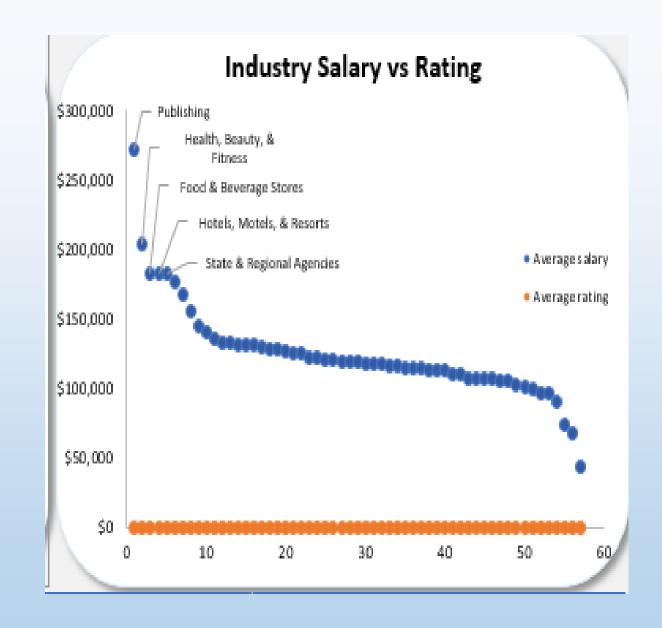
Hotels, Motels, & Resorts -

State & Regional Agencies -

Whole sale -

Architectural & Engineering -

Aerospace & Defense -



Problem 4:

Question: which U.S. cities offer the most Data science job opportunities and best pay?

Location& market opportunities

San Francisco

New York

Washington

Boston

Chicago



Problem 5:

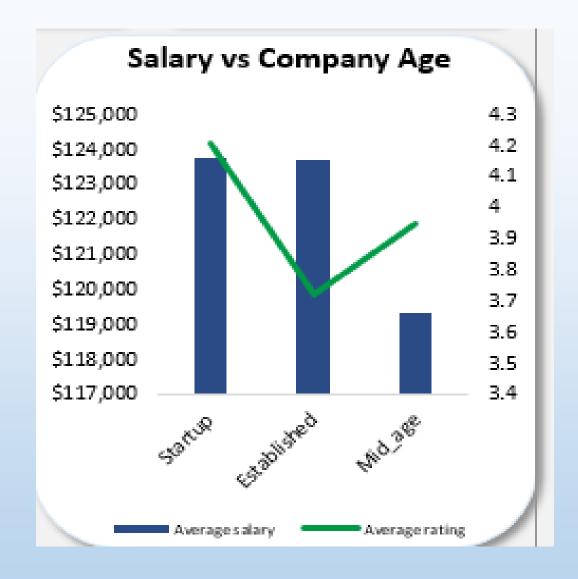
Question: Do older, more established companies offer higher salaries?

Company Age vs Salary:

Start ups (≤ 5 years) \$123,774 4.2

Mid-age (6–15 years) \$123,706 3.72

Established (> 15 years) \$119,337 3.95

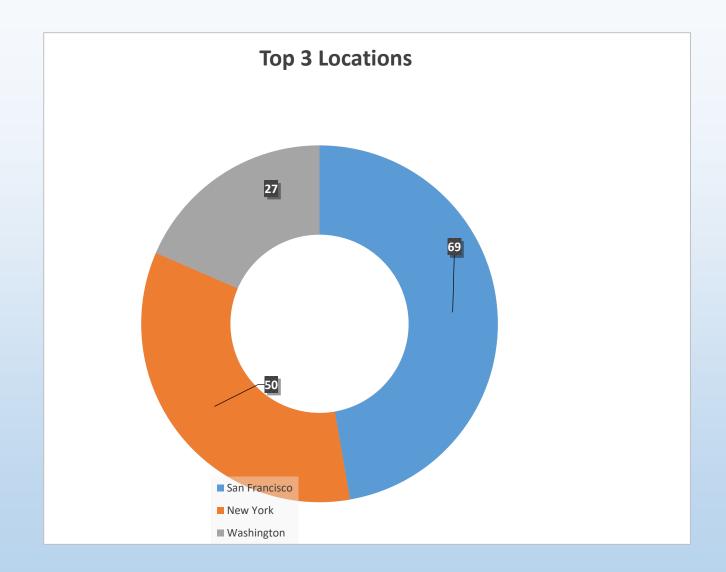


Top 3 Locations for Job counts:

San Francisco

New York

Washington



Recommendations:

Recruitment for high value roles should be between Senior Data Scientist & Machine Learning Engineers.

Focus on top cities (San Francisco, New York city, Washington)

Keep Salaries competitive in Health and Finance Sectors.

Highlight growth potential to attract talent to start-ups.

Implement a skill-based hiring strategy (to align required skills with salary levels)

Develop a data driven compensation dashboard to continuously monitor pay equity and market trends.

Thanks for having us.

