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DSML

Data Scientist Salary Analysis
Week 3 Project

Project Summary

- Data Scientist salary data from Kaggle
- https://www.kaggle.com/datasets/chopper53/data-scientist-salary-in-2024
- 2 Tables: Salary, Company
- Cleaned the data on Python
- Analyzed in SQL
- Visualized in Tableau

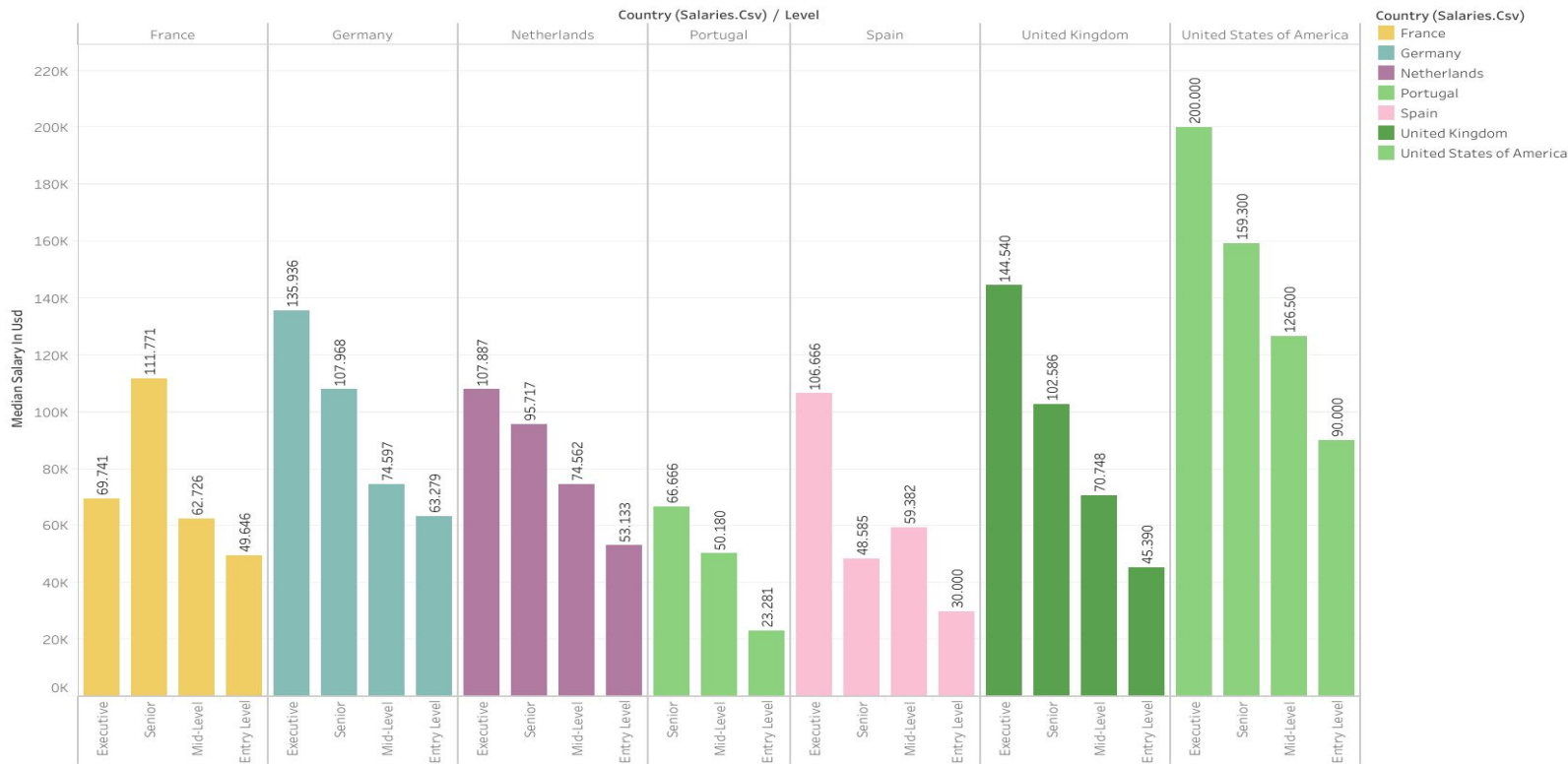What are median salaries for a Data Scientist for each experience level?

Median Salaries by Experience Level

	Entry Level	Mid-Level	Senior	Executive
MEDIAN_SALARY	$83000	$115000	$155000	$192000
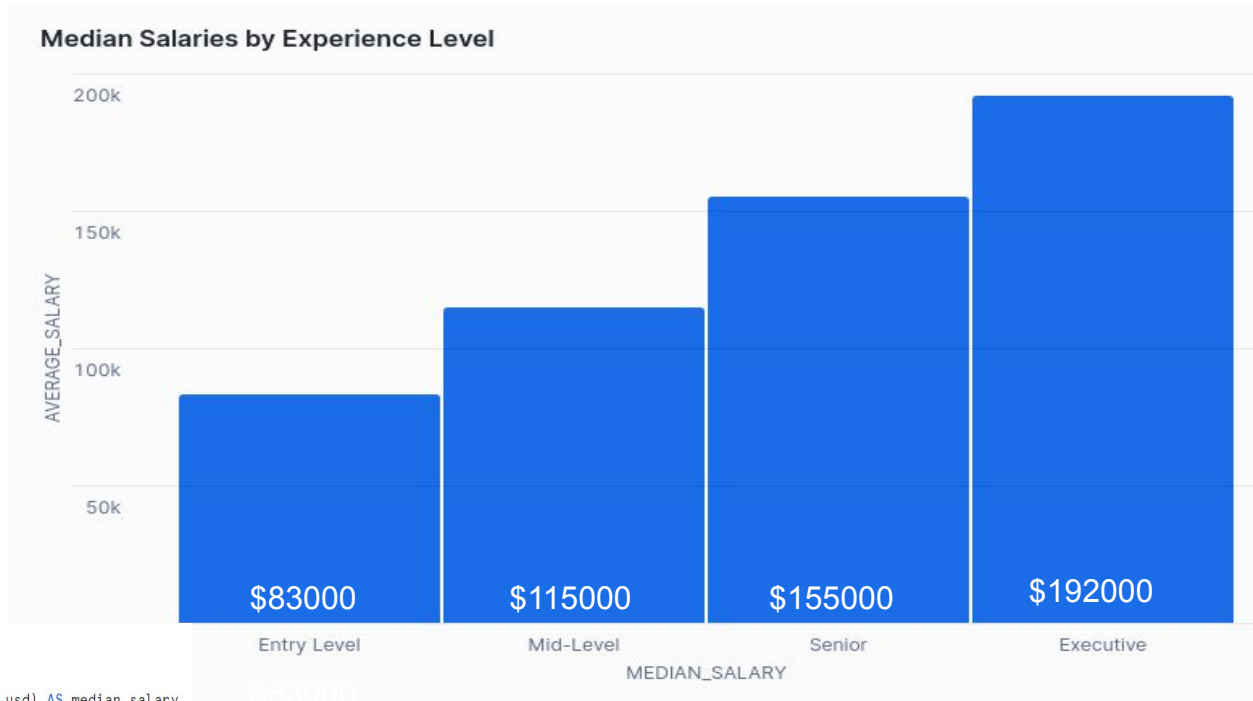
```sql
SELECT
    s.level,
    AVG(s.salary_in_usd) AS average_salary,
    PERCENTILE_CONT(0.5) WITHIN GROUP (ORDER BY s.salary_in_usd) AS median_salary,

FROM
    salaries s
JOIN
    companies c ON s.row_number = c.row_number
GROUP BY
    s.level
ORDER BY
    AVG(s.salary_in_usd) DESC;
```
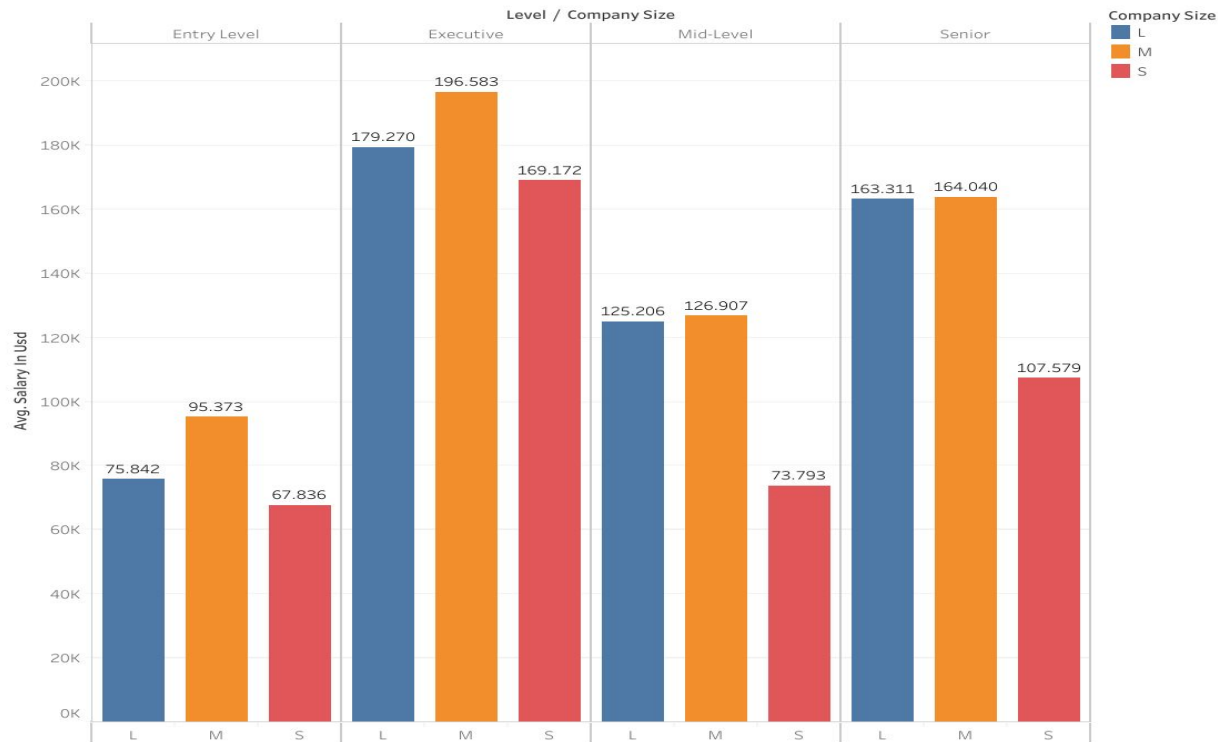
Are there salary differences in different company sizes for each experience level?

Sheet 3

Level / Company Size

Company Size
- L
- M
- S

Entry Level | Executive | Mid-Level | Senior

Avg. Salary In Usd

Entry Level: L 75.842, M 95.373, S 67.836
Executive: L 179.270, M 196.583, S 169.172
Mid-Level: L 125.206, M 126.907, S 73.793
Senior: L 163.311, M 164.040, S 107.579
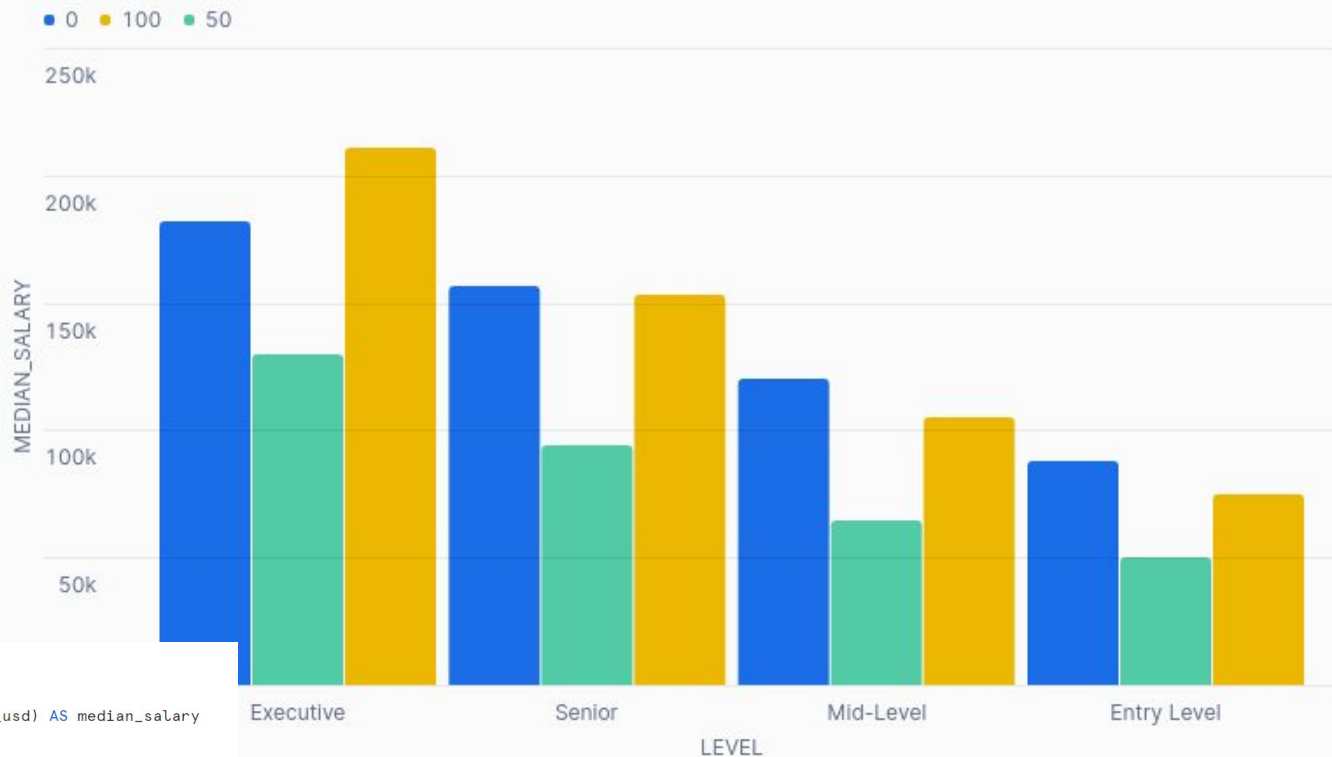
```sql
SELECT
    s.level,
    c.company_size,
    PERCENTILE_CONT(0.5) WITHIN GROUP (ORDER BY s.salary_in_usd) AS median_
FROM
    salaries s
JOIN
    companies c ON s.row_number = c.row_number
GROUP BY
    s.level, c.company_size
order by company_size;
```

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Does remote work ratio affect salaries in the industry?

Salaries by remote work ratio

● 0   ● 100   ● 50

```sql
SELECT
    s.level,
    c.remote_ratio,
    PERCENTILE_CONT(0.5) WITHIN GROUP (ORDER BY s.salary_in_usd) AS median_salary
FROM
    salaries s
JOIN
    companies c ON s.row_number = c.row_number
GROUP BY
    s.level, c.remote_ratio
order by remote_ratio desc;
```

What are the highest paying positions in each experience level?

	LEVEL	JOB_TITLE	AVERAGE_SALARY
1	Executive	Principal Data Scientist	416000.000000
2	Executive	Head of Machine Learning	299758.428571
3	Executive	Managing Director Data Science	280000.000000
4	Executive	Machine Learning Engineer	235030.555556
5	Executive	Director of Data Science	230673.285714
6	Senior	Analytics Engineering Manager	399880.000000
7	Senior	Data Science Tech Lead	375000.000000
8	Senior	Deep Learning Engineer	272374.000000
9	Senior	Cloud Data Architect	250000.000000
10	Senior	AI Architect	233631.481481
11	Mid-Level	AI Architect	800000.000000
12	Mid-Level	AWS Data Architect	258000.000000
13	Mid-Level	Machine Learning Scientist	233893.333333
14	Mid-Level	Data Infrastructure Engineer	217288.750000
15	Mid-Level	Director of Data Science	204500.000000
16	Entry Level	Research Scientist	165070.486486
17	Entry Level	Applied Scientist	153442.857143
18	Entry Level	Business Intelligence Lead	150747.500000
19	Entry Level	Machine Learning Operations Engineer	150000.000000
20	Entry Level	Cloud Data Engineer	138588.500000

What is the gender pay gap in each experience level?
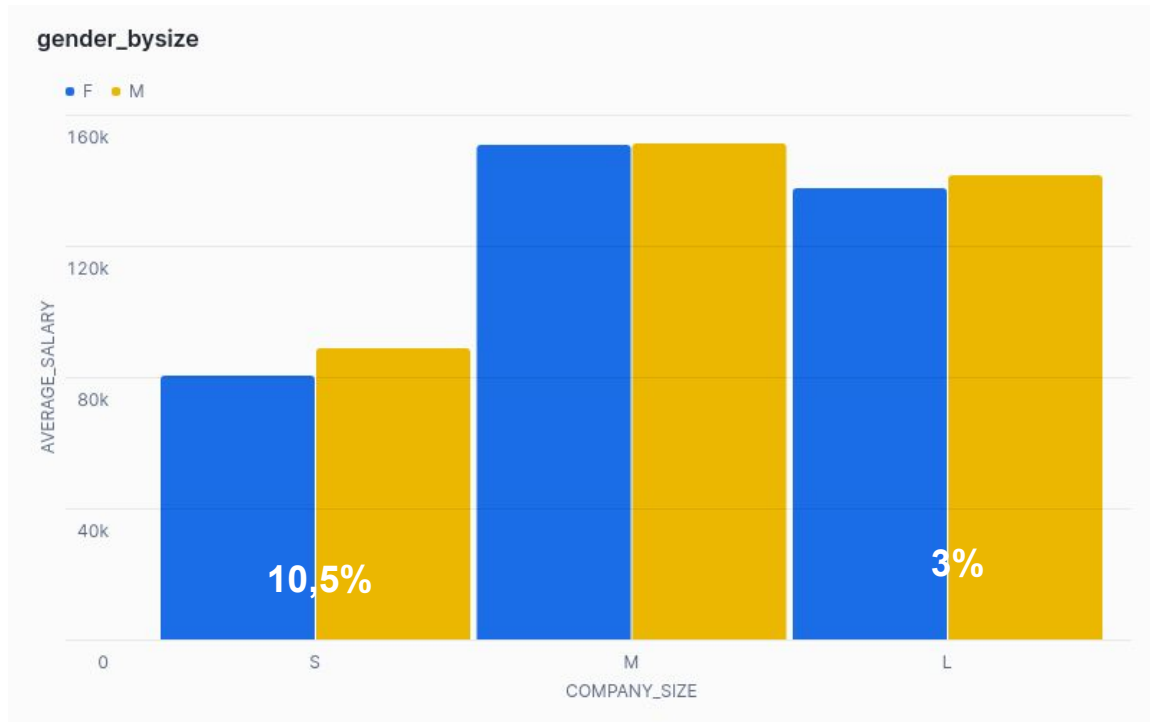
Gender pay gap in different countries

Sheet 5

Country (Salaries.Csv) / Gender

Avg. Salary In Usd

Country (Salaries.Csv)
- Germany
- Netherlands
- Portugal
- Spain
- United Kingdom
- United States of America

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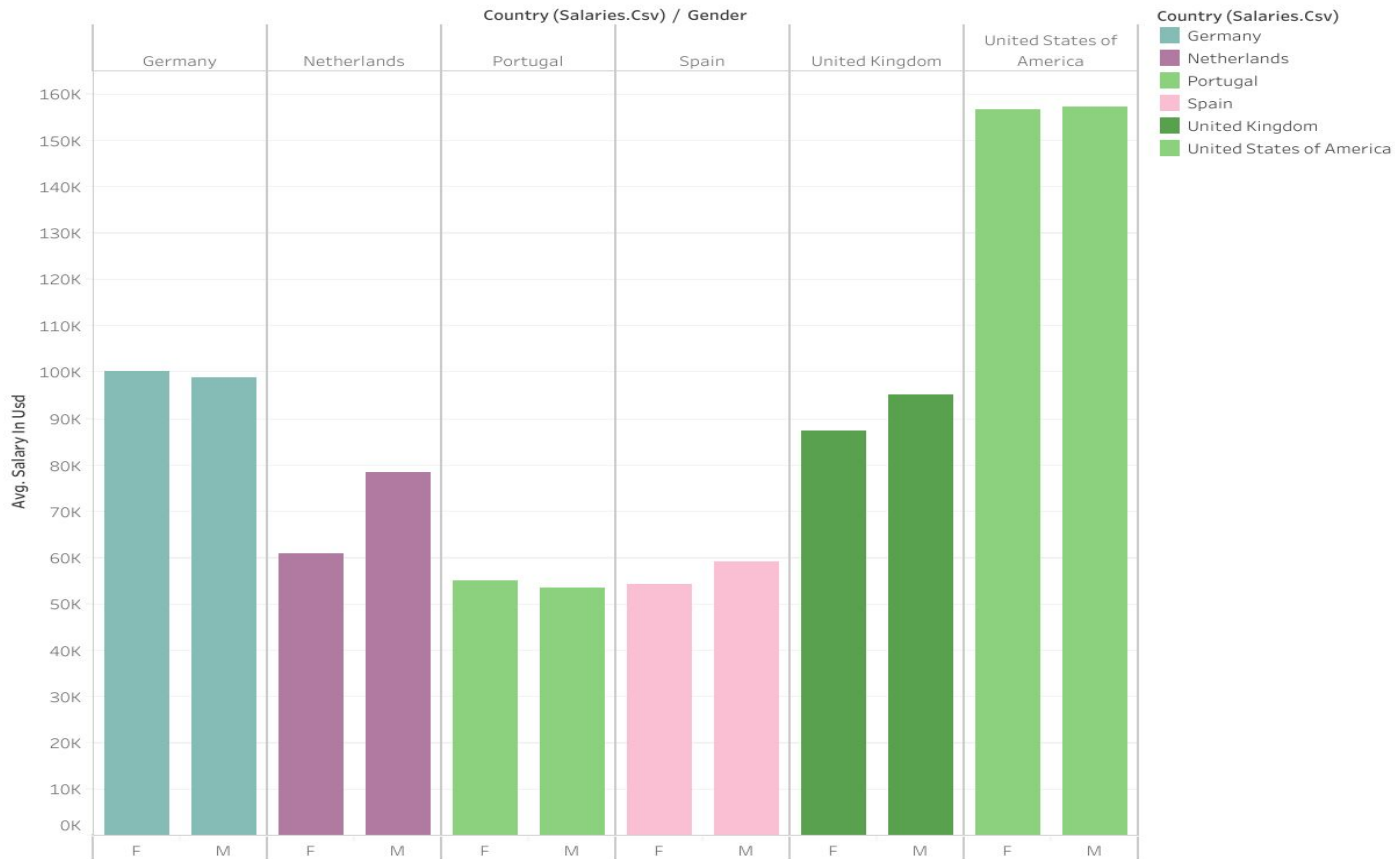
What are the top countries for remote Data Scientists?

Top countries for remote work

Country	
Qatar	300000
Ukraine	170000
Puerto Rico	167500
United States of America	152756.827586
Canada	152379.651429
Saudi Arabia	134999
Australia	116710.454545
Israel	113717.333333
Sweden	108187
Ireland	107523