

Client Report - AI/ML Salaries

Marcel Pratikto

Elevator Pitch

This data analysis project will analyze the following dataset: <https://www.kaggle.com/datasets/cedricaubin/ai-ml-salaries> I'm doing this because I'm interested in pursuing a career in AI/Machine Learning.

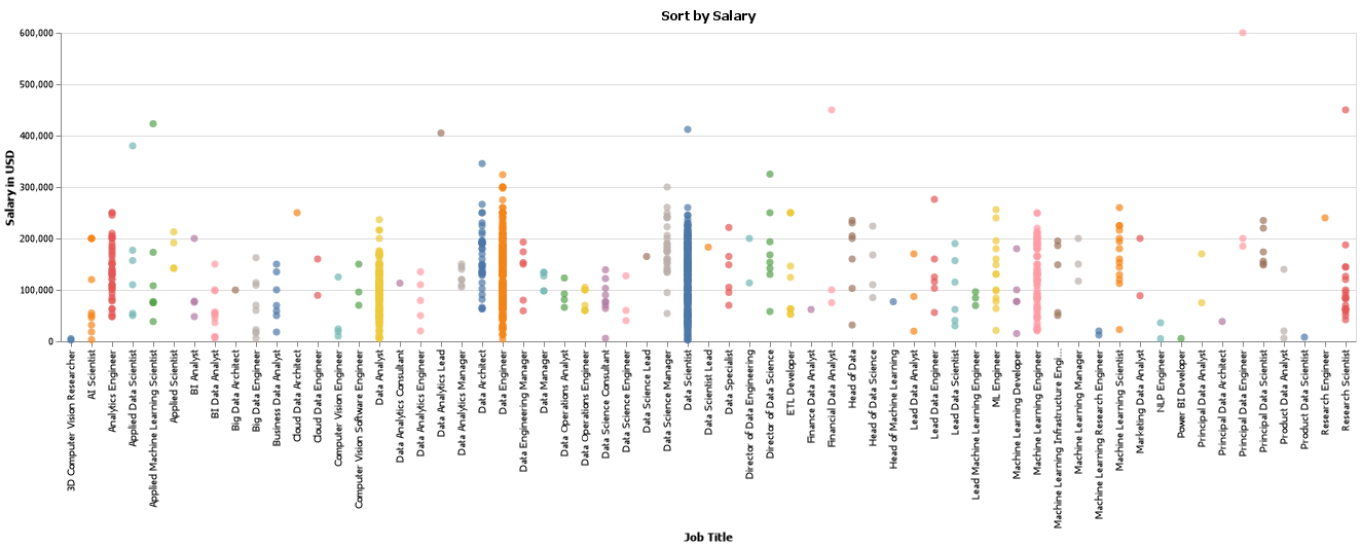
GRAND QUESTION 1

Salary by position

The table, which only shows the top 5 salaries, tells us that the highest salary job is Principal Data Engineer at \$600,000. When using a scatter plot to get a better overview of the data, however, we see that on average the highest paying job is not Principal Data Engineer. The second table shows that the job with the highest average salary is Data Analytics Lead at \$405,000.

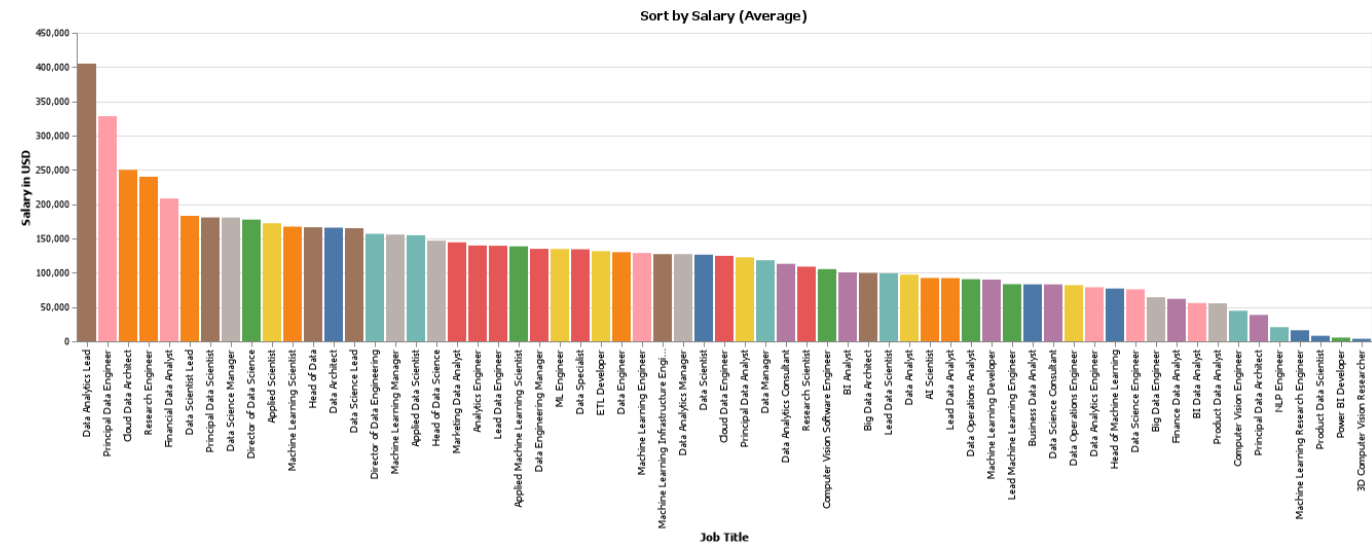
TECHNICAL DETAILS

work_year	experience_level	job_title	salary_in_usd
2021	EX	Principal Data Engineer	600000
2020	MI	Research Scientist	450000
2021	MI	Financial Data Analyst	450000
2021	MI	Applied Machine Learning Scientist	423000
2020	SE	Data Scientist	412000



job_title	salary_in_usd
Data Analytics Lead	405000

job_title	salary_in_usd
Principal Data Engineer	328333
Cloud Data Architect	250000
Research Engineer	240000
Financial Data Analyst	208333
Data Scientist Lead	183000
Principal Data Scientist	180641
Data Science Manager	180533
Director of Data Science	177487
Applied Scientist	172150
Machine Learning Scientist	167235
Head of Data	166346
Data Architect	165779
Data Science Lead	165000
Director of Data Engineering	156738
Machine Learning Manager	155701
Applied Data Scientist	154712
Head of Data Science	146718
Marketing Data Analyst	144327
Analytics Engineer	139713
Lead Data Engineer	139372
Applied Machine Learning Scientist	138525
Data Engineering Manager	134856



GRAND QUESTION 2

Salary by year

For this question, I'm not going to focus on the highest paying jobs, but on the jobs that I'm more likely to apply to. I want to see the change in salary for the following jobs that are more common:

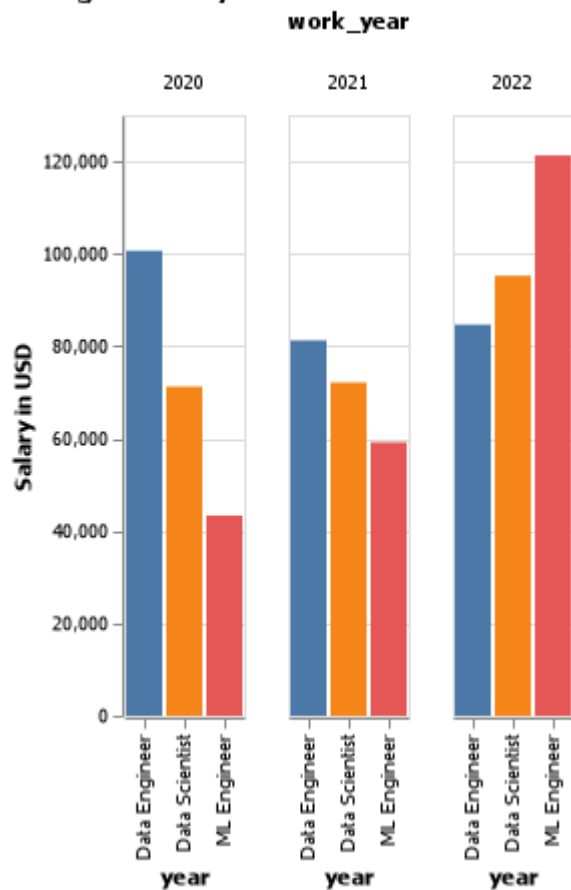
- Data Engineer
- Data Scientist
- ML Engineer (I decided to combine Machine Learning Engineer with ML Engineer since they're the same)

ML Engineers have seen a huge spike in salary.

TECHNICAL DETAILS

	work_year	salary_in_usd	job_title
0	2020	100656	Data Engineer
1	2021	81254	Data Engineer
2	2022	84666	Data Engineer
3	2020	71256	Data Scientist
4	2021	72144	Data Scientist
5	2022	95242	Data Scientist
6	2020	43331	ML Engineer
7	2021	59186	ML Engineer
8	2022	121284	ML Engineer

Change in salary



GRAND QUESTION 3

Salary by experience level

The average salary, in the years provided by the dataset, are shown in the table below. It is in alphabetical order instead of seniority.

- EN: \$61,140
- MI: \$91,129
- SE: \$145,077
- EX: \$189,427

That is an almost 3x increase in salary from entry level to executive level!

TECHNICAL DETAILS

experience_level	salary_in_usd
EN	61140
EX	189427
MI	91129
SE	145077