

MSBA 285 - CAPSTONE PROJECT 1

University Of the Pacific

Spring 2024

COMPANY LAYOFFS

TABLE OF CONTENTS:

Questions

Outline of the Company Layoff Dataset

Overview of the data

Data cleaning

Dynamics of the job market

Top and Bottom Companies & Industries by Average Layoff Percentages

Lay off trends across industries.

Amount of funds collected per funding stage

Top 5 countries with highest raised

Dashboard

Conclusion

COMPANY LAYOFFS DATASET:

Company	Location_HQ	Industry	Laid_Off_Count	Percentage	Date	Funds_Raised	Stage	Date_Added	Country
EasyPost	Salt Lake City	Logistics	75	0.6	3/11/2020	12	Series A	3/31/2020 13:21	United States
Tamara Mellon	Los Angeles	Retail	20	0.4	3/12/2020	90	Series C	3/31/2020 16:04	United States
Panda Squad	SF Bay Area	Consumer	6	0.75	3/13/2020	1	Seed	4/17/2020 0:12	United States
HopSkipDrive	Los Angeles	Transportation	8	0.1	3/13/2020	45	Unknown	4/3/2020 4:47	United States
Help.com	Austin	Support	16	1	3/16/2020	6	Seed	4/16/2020 6:36	United States
Inspirato	Denver	Travel	130	0.22	3/16/2020	79	Series C	3/31/2020 14:45	United States
Flytedesk	Boulder	Marketing	4	0.2	3/18/2020	4	Seed	4/1/2020 0:56	United States
Lola	Boston	Travel	34	0.6	3/19/2020	81	Series C	3/28/2020 20:52	United States
Remote Year	Chicago	Travel	50	0.5	3/19/2020	17	Series B	3/28/2020 20:52	United States
Ejento	SF Bay Area	Recruiting	84	1	3/19/2020	18	Unknown	3/28/2020 20:52	United States
Recurse	Bangalore	Transportation	120	0.6	3/19/2020	214	Series B	3/28/2020 20:52	India

Questions:

How is the layoffs across countries and how should a graduate choose to join a new company?

- Are there specific geographic regions associated with higher or lower laid-off counts?
- How is the fundraising and layoff dynamics vary across different company sizes?

Outline of the Company Layoff Dataset:

The provided dataset offers insights into company layoffs that occurred between 2020 and 2024, covering companies from various industries, including retail, marketing, food, education, finance, and more. The Layoff counts vary, and the percentage of laid-off employees ranges from 0.06% to 1%.

Funding stages include Seed, Series A, Series B, and more. Companies are headquartered in different countries, such as the United States, Brazil, India, Kenya, and Australia. Here's a breakdown of the data points included:

Company	Location_HQ	Industry	Laid-Off_Count
Percentage	Date	Funds_Raised	Stage
Date_Added	Country		

Data cleaning:

We have collected the company layoffs data set. which it was found initially as unstructured data. we perform necessary changes the data by the following terms for cleaning the data:

- Removing irrelevant or duplicate data.
- Handling missing values by either imputation or removal.

- Standardizing data formats and encoding
- Removing special characters, HTML tags, or other formatting artifacts.

Divide the text into manageable chunks, like individual words, phrases, or sentences. For tasks involving text analysis, this phase is vital.

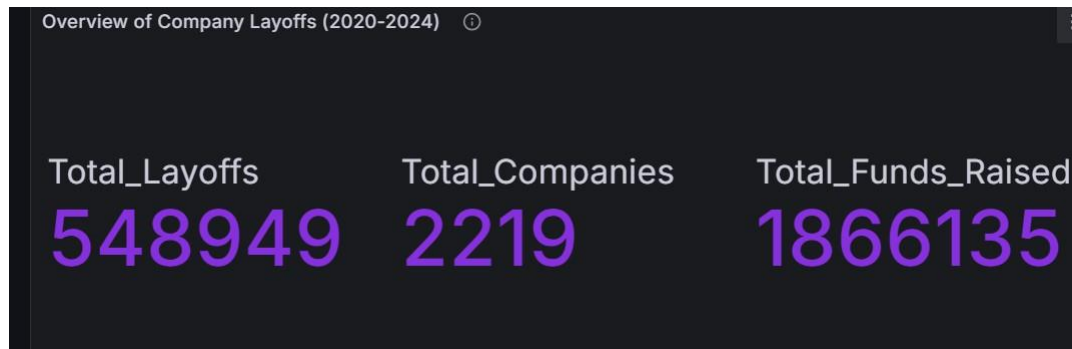
Remove frequently used terms that don't have much significance for analysis.

Make that the data has been cleaned and complies with the specifications needed for your particular study or use. Verifying the accuracy, consistency, and usefulness of the data may be part of this.

Schema:

```
[{
  "name": "Company_",
  "type": "STRING",
  "mode": "NULLABLE",
  "description": "Company"
}, {
  "name": "Location_HQ",
  "type": "STRING",
  "mode": "NULLABLE",
  "description": "Location"
}, {
  "name": "Industry_",
  "type": "STRING",
  "mode": "NULLABLE",
  "description": "Industry"
}, {
  "name": "Laid_Off_Count",
  "type": "INTEGER",
  "mode": "NULLABLE",
  "description": "Laid Off Count"
}, {
  "name": "Percentage_",
  "type": "FLOAT",
  "mode": "NULLABLE",
  "description": "Percentage"
}, {
  "name": "Date_",
  "type": "DATE",
  "mode": "NULLABLE",
  "description": "Date"
}, {
  "name": "Funds_Raised",
  "type": "FLOAT",
  "mode": "NULLABLE",
  "description": "Funds Raised"
}, {
  "name": "Stage_",
  "type": "STRING",
  "mode": "NULLABLE",
  "description": "Stage"
}, {
  "name": "Country_",
  "type": "STRING",
  "mode": "NULLABLE",
  "description": "Country"
}]
```

1. Overview of the data



Key Findings:

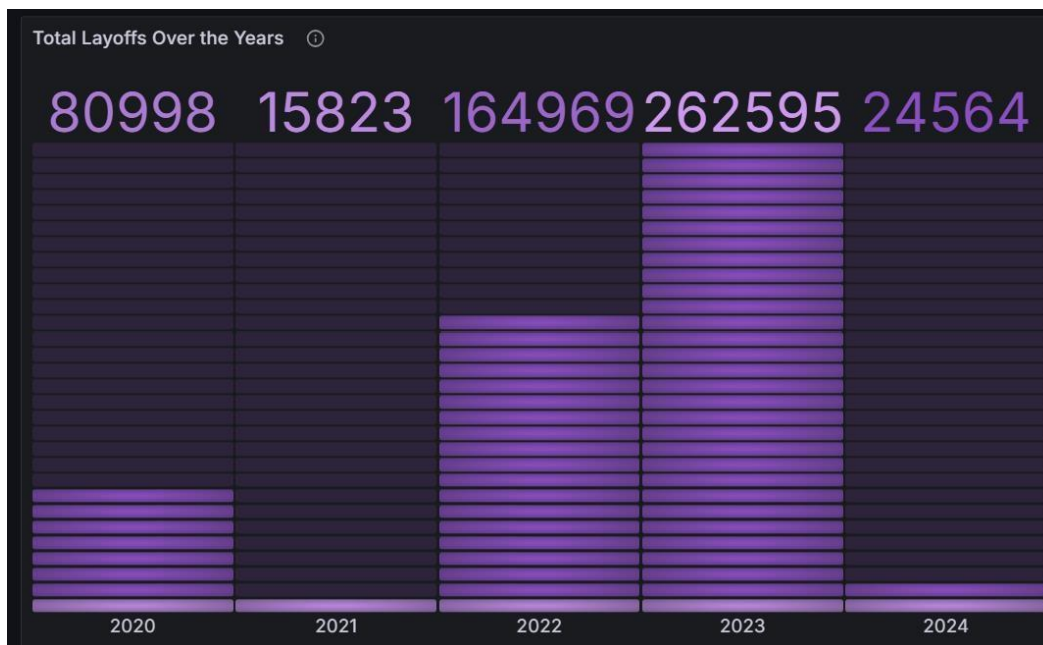
Layoff Impact:

A significant number of employees, 548,949, were affected by layoffs across 2,219 companies during this period. This highlights a concerning trend with potentially widespread consequences.

Funding Landscape:

Despite the layoffs, the data shows that these companies collectively raised a substantial amount of funds, totaling \$1,866,135.

2. Dynamics of the job market:



In total, 548,949 employees were laid off during this period. The year with the most layoffs was 2023, with a staggering 262,595 affected workers. This is more than triple the number of layoffs in 2020 (80,998). In contrast, 2021 saw the fewest number of layoffs (15,823).

Lay Offs trend over years:

2020: While concerning, 80,998 employees were laid off.

2021: The number dropped significantly to 15,823.

2022: Layoffs began to climb again, reaching 164,969.

2023: This year witnessed a sharp rise, with a staggering 262,595 employees losing their jobs.

2024 (so far): The number seems to be decreasing, with 24,564 layoffs reported.

3. Top and Bottom Companies & Industries by Average Layoff Percentages:

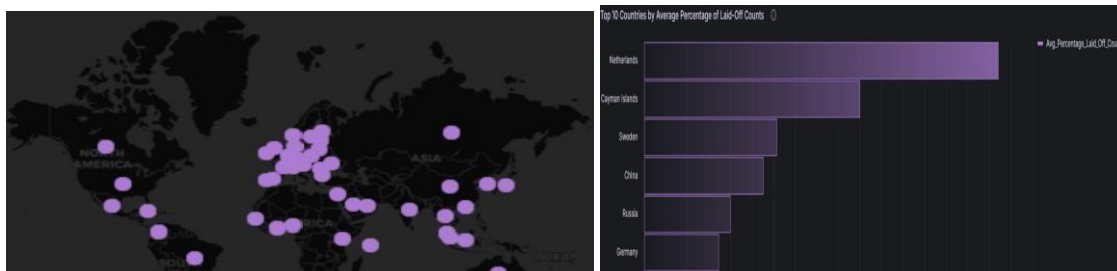


Physics Wallah, with an average layoff percentage of 1, reflects minimal workforce reduction, suggesting a relatively stable employment environment within the company. Conversely, Simple Feast, with a staggering average layoff percentage of 100, signals a starkly contrasting scenario, indicating a complete turnover or downsizing of its workforce during the observed period.

Top and Bottom Industries by Average Layoff Percentage:

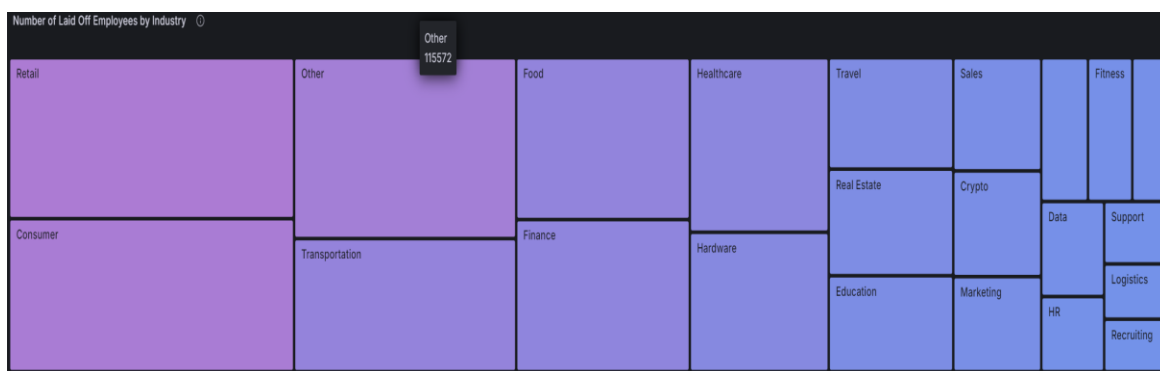
The data highlights the variability in average layoff percentages across different industries, exemplified by Aerospace and Security. Aerospace, with an average layoff percentage of 53.9, This high percentage suggests substantial workforce adjustments and restructuring efforts within aerospace companies during the observed period. On the other hand, Security, with a notably lower average layoff percentage of 22.9, implies a relatively more stable employment environment within the security sector.

3. Layoffs trends across Countries:



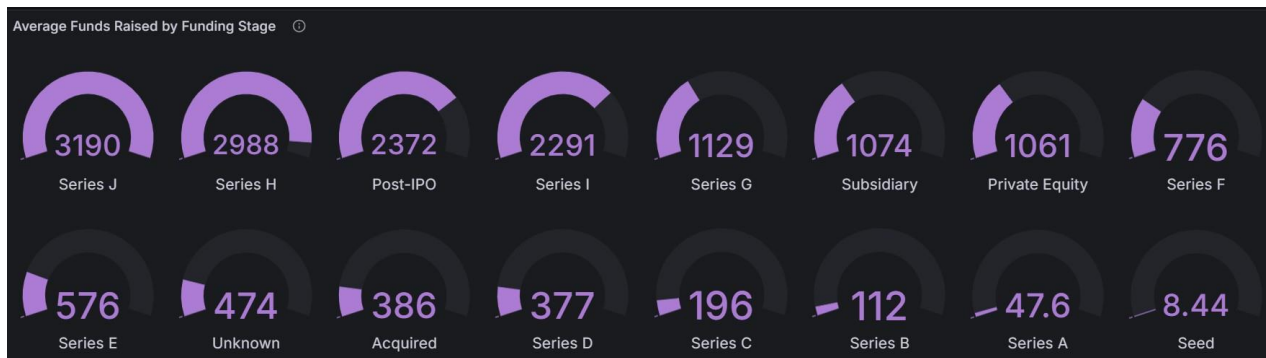
The Netherlands has the highest average percentage of laid-off counts, at nearly 1.8%. This means that, on average, companies in the Netherlands laid off a higher percentage of their employees than companies in any other country in the dataset. The Cayman Islands, Sweden, and China also have relatively high average percentages of laid-off counts, above 1%. The United States has the lowest average percentage of laid-off counts, at around 0.1%. It is important to note that this data is just a small sample of the global economy, and the average percentage of laid-off counts may vary significantly from country to country.

4. Lay off trends across industries:



A visual summary of the total number of employees laid off in different industries. Retail and consumer are equally involved.

6. Amount of funds collected per funding stage:



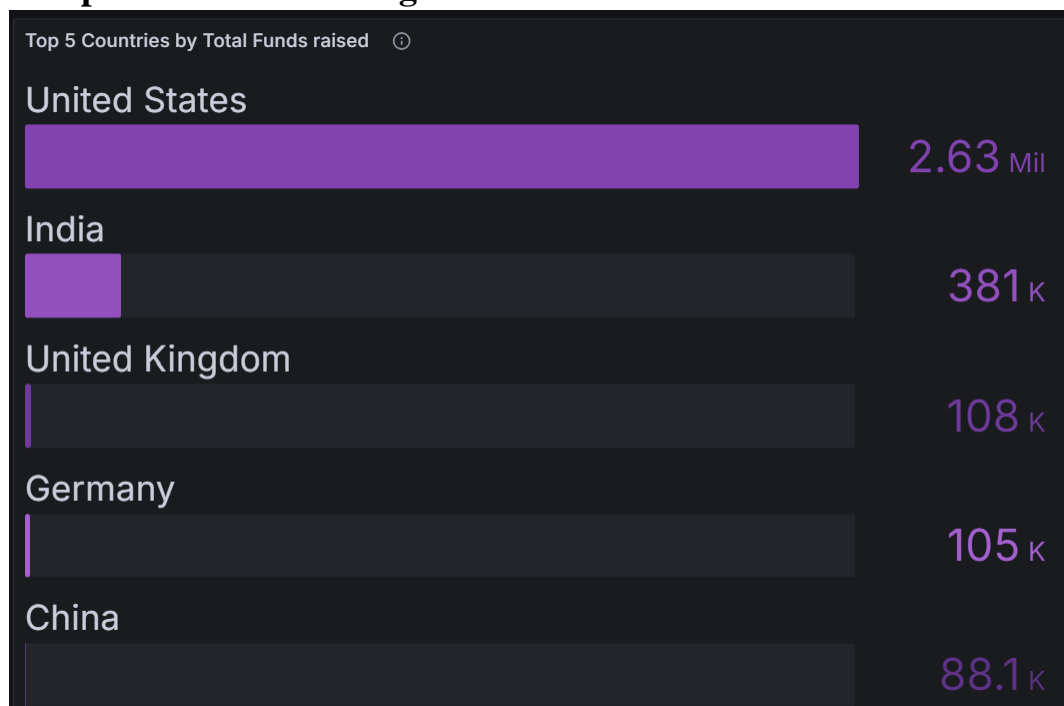
Series J has the highest average funds raised, at \$3,190 million. This suggests that companies in this late-stage funding round typically raise the most capital.

Other stages with high average funding include Series E (\$576 million), Series H (\$2,988 million), and Post-IPO (\$2,372 million).

Stages like Series A (\$47.6 million), Series B (\$112 million), and Seed (\$8.44 million) have significantly lower average funding amounts.

Some categories, such as Subsidiary, Acquired, and Unknown, exist but don't follow a traditional funding stage pattern and might require further investigation.

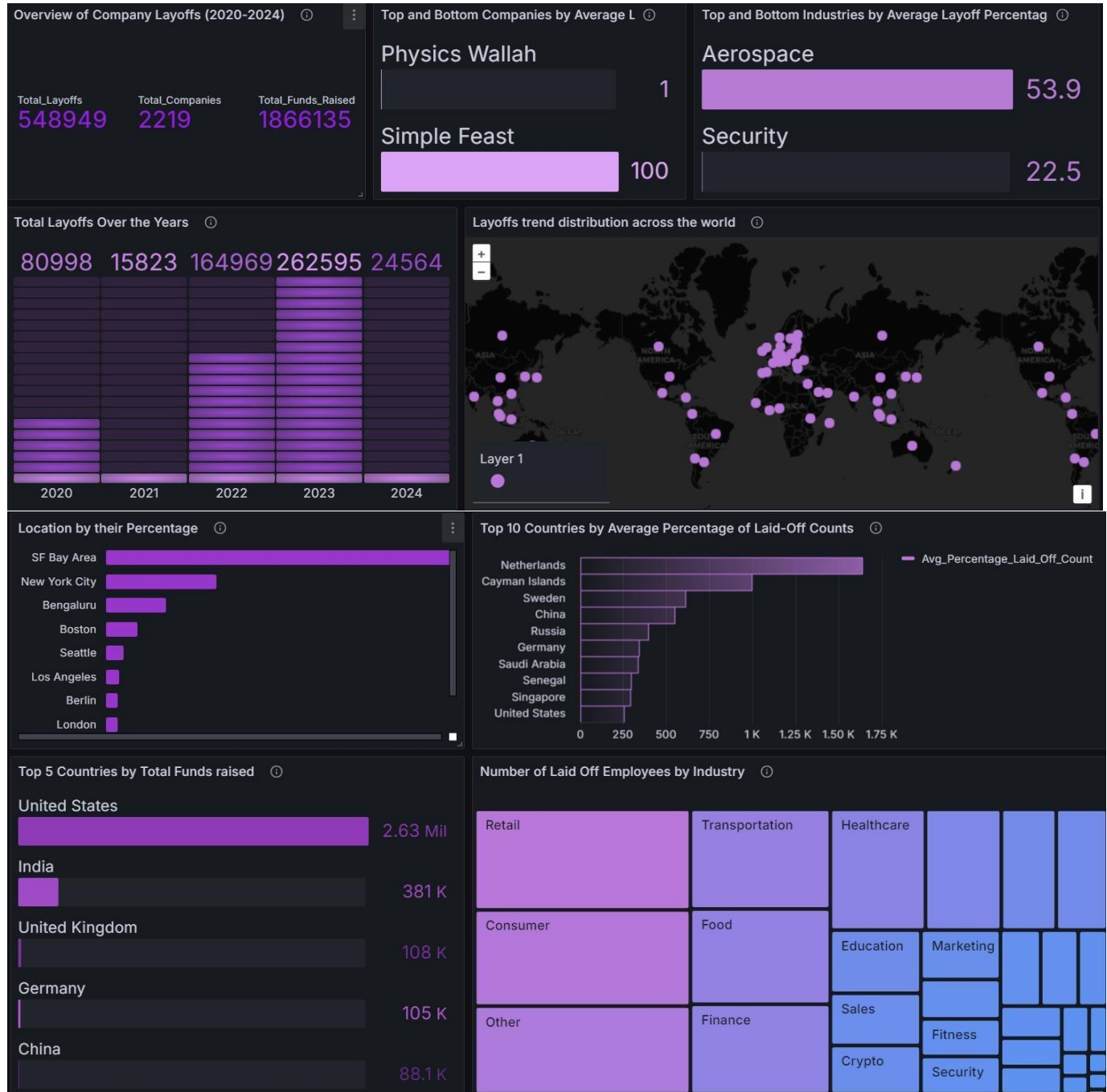
7. Top 5 countries with highest raised:



Funds The United States has raised the highest total amount of funds, exceeding 2.63 million.

India follows with 381 thousand, and the remaining countries (United Kingdom, Germany, and China) have progressively lower totals, ranging from 108 thousand to 88.1 thousand.

Overall Dashboard:



Company_	Location_HQ	Industry_	Laid_Off_Count	Percentage_	Date_	Funds_Raised	Stage_
Deepgram	SF Bay Area	AI	20	0.200	2023-10-11	86	Series B
Dataminr	New York City	AI	150	0.200	2023-11-28	1100	Series F
Qomplx	Washington D.C.	AI	60	0.600	2023-08-04	107	Series A
UKG	Miami	HR	265	0.600	2023-03-06	18	Unknown

Conclusion:

Given the trends, graduates seeking new jobs should consider factors like company size, industry stability, and funding stage alongside location and other traditional considerations. While this data offers a starting point; further research is crucial to assess an individual company's layoff risk.