

Data Visualization Project - 2023/2024

The Future of Work in an Evolving World

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[LINK TABLEAU](#)



Data Collection and Preparation

DATASET

The data comes from layoffs.fyi, the dataset contains a list of all layoffs news made in the world from 2020 to today.

Nascondi campi														Filtro	Gruppo	Ordinare	...
	Azienda	Sede cent...	# Licenzia...	Data	%	Industria	Fonte	Elenco dei dipendenti...	Palcosc...	\$ Rialzato...	Paese	Data aggiunta					
1	Affrettato	Los Angeles	500	2/5/2024	10%	Consumat...	https://www.cnn.com/...		Post-IPO	\$ 4.900	stati Uniti	2/5/2024					
2	Indica la salute	San Diego	245	2/2/2024	30%	Assistenza...	https://www.sandiegou...		Post-IPO	\$ 899	stati Uniti	2/5/2024					
3	Cappello a cilindro	Toronto	35	2/2/2024	7%	Formazion...	https://betakit.com/tor...		Serie E	\$ 234	Canada	2/2/2024					
4	Biciclette per torte	Stoccolma		2/2/2024	100%	Trasporti	https://techcrunch.com...		Sconosciu...	\$ 74	Svezia	2/3/2024					
5	Piccola azienda di ...	Salisbury		2/2/2024	100%	Cibo	https://www.thebottle...		Sconosciu...	\$ 10	Regno Unito	2/3/2024					
6	Ramoscello	Londra		2/2/2024	100%	Finanza	https://www.fintechfutu...		Sconosciu...	\$ 41	Regno Unito	2/3/2024					
7	Ok	Zona della ...	400	2/1/2024	7%	Sicurezza	https://www.cnn.com/...		Post-IPO	\$ 1.200	stati Uniti	2/1/2024					
8	Ingrandisci	Zona della ...	150	2/1/2024	2%	Altro	https://www.cnn.com/...		Post-IPO	\$ 276	stati Uniti	2/1/2024					
9	illumina	San Diego	111	2/1/2024		Assistenza...	https://www.sandiegou...		Post-IPO	\$ 28	stati Uniti	2/3/2024					
10	Poligono	Isle Cym...	60	2/1/2024	19%	Criptovaluta	https://forum.polygon.f...		Sconosciu...	\$ 451	Isle Cym...	2/1/2024					
11	Indaco	Boston		2/1/2024		Altro	https://www.bizjournals...		Serie F	\$ 1.200	stati Uniti	2/2/2024					
12	Punto di prova	Zona della ...	280	31/1/2024	6%	Sicurezza	https://www.calcalistec...		Acquisita	\$ 885	stati Uniti	31/1/2024					
13	Trove Recommere	Zona della ...	130	31/1/2024		Vedere al ...	https://www.bizjournals...		Serie E	\$ 152	stati Uniti	2/2/2024					
14	CerchioCI	Zona della ...	100	31/1/2024		Prodotto	Nota interna		Serie F	\$ 315	stati Uniti	2/1/2024					
15	Thinx	New York	95	31/1/2024		Vedere al ...	https://www.modernret...		Acquisita	\$ 26	stati Uniti	31/1/2024					
16	Innoviz	Tel Aviv	60	31/1/2024	13%	Trasporti	https://www.calcalistec...		Post-IPO	\$ 547	Israele	2/1/2024					
17	Il Messaggero	Miami		31/1/2024	100%	Media	https://www.nbctvnews.c...		Sconosciu...		stati Uniti	2/1/2024					
18	Zuora	Zona della ...		31/1/2024	8%	Finanza	https://www.sec.gov/inv...		Post-IPO	\$ 647	stati Uniti	2/2/2024					
19	PayPal	Zona della ...	2500	30/1/2024	9%	Finanza	https://www.bloomberg...		Post-IPO	\$ 216	stati Uniti	30/1/2024					
20	Bloccare	Zona della ...	1000	30/1/2024	10%	Finanza	https://www.businessin...	https://docs.google.com...	Post-IPO	\$ 150	stati Uniti	30/1/2024					
21	Kiwi.com	Birno	216	30/1/2024	18%	Viaggio	https://cc.cz/vyhledavac...		Sconosciu...	\$ 107	Repubblica C...	30/1/2024					
22	Aurora Solare	Zona della ...	111	30/1/2024	20%	Energia	https://techcrunch.com...		Serie D	\$ 523	stati Uniti	30/1/2024					
23	Wattpad	Toronto	20	30/1/2024	10%	Media	https://techcrunch.com...		Acquisita	\$ 117	Canada	31/1/2024					
24	TechCrunch	Zona della ...	7	30/1/2024		Media	https://www.adweek.co...		Acquisita		stati Uniti	31/1/2024					
25	Noom	New York		30/1/2024		Fitness	https://endpts.com/wei...		Serie F	\$ 657	stati Uniti	31/1/2024					
26	Vipps	Vilnius		30/1/2024		Finanza	https://www.lytas.lt/ver...		Sconosciu...		Lituania	2/2/2024					
27	io Robot	Boston	350	29/1/2024	31%	Consumat...	https://www.cnn.com/...		Post-IPO	\$ 30	stati Uniti	29/1/2024					
28	DispatchHealth	Denver	88	29/1/2024		Assistenza...	https://homehealthcare...		Serie E	\$ 733	stati Uniti	30/1/2024					
29	Loopio	Toronto		29/1/2024	6%	Salù	https://www.linkedin.co...		Equità p...	\$ 263	Canada	30/1/2024					
30	Salesforce	Zona della ...	700	26/1/2024	1%	Salù	https://www.wsj.com/ec...		Post-IPO	\$ 65	stati Uniti	26/1/2024					
31	Flexport	Zona della ...		26/1/2024	20%	Logistica	https://www.theinforma...	https://docs.google.com...	Serie E	\$ 2.400	stati Uniti	26/1/2024					
32	Scheda prodotto	Zona della ...		26/1/2024		Prodotto	https://www.businessin...		Serie D		stati Uniti	27/1/2024					
33	Microsoft	Seattle	1900	25/1/2024		Altro	https://www.theverge.c...		Post-IPO	\$ 1	stati Uniti	25/1/2024					
34	Swiggy	Bangalore	400	25/1/2024	7%	Cibo	https://techcrunch.com...		Sconosciu...	\$ 3.600	India	25/1/2024					

Data Processing

- **Reading the Excel file:** The code reads an Excel file named “Layoff.xlsx” and loads it into a pandas DataFrame.
- **Data Cleaning:** The code removes the string ‘,Non-U.S.’ from the ‘Location HQ’ column of the DataFrame. It also removes the dollar symbol and commas from the ‘\$ Raised (mm)’ column, and converts the values to integers, keeping NaN values intact. The values in the ‘%’ column are multiplied by 100 and converted to integers, again keeping NaN values intact. The ‘SF Bay Area’ string in the ‘Location HQ’ column is replaced with ‘San Francisco’.
- **Data Type Conversion:** The code converts the columns ‘%’, ‘\$ Raised (mm)’, ‘Date Added’, and ‘Date’ to the appropriate data types.

Data Processing

- **Data Manipulation:** The code installs and imports the 'pycountry' module and defines a function to convert the country name to code using the 'pycountry' module. This function is applied to the 'Country' column and the results are saved in a new column named 'Country_code'.
- **Reading Another CSV File:** The code reads another CSV file named "cities.csv" into a DataFrame 'df1' and removes duplicates based on the 'name' and 'country_code' columns.

Data Processing

- **Merging DataFrames:** The code merges the 'df' and 'df1' DataFrames based on the 'Location HQ' and 'Country_code' columns of 'df' and the 'name' and 'country_code' columns of 'df1'. The resulting DataFrame is saved in 'merged_df'.
- **Saving the Merged DataFrame:** Finally, the code saves the 'merged_df' DataFrame into an Excel file named "merged_df.xlsx" and downloads it.

Story and Aesthetics

Data Story

The project aims to understand the ongoing impact of the COVID-19 pandemic on the job market, specifically focusing on layoffs. The central question is: “What are the trends and patterns in layoffs due to the pandemic, and how can they inform our understanding of the current job market?” Data was sourced from Layoffs.fyi, which tracks company layoffs based on news reports. This data offers insights into layoffs over recent years, including details about the company, location, sector, and funding stage. The data was analyzed and visualized through a series of dashboards. These include maps showing the geographical distribution of layoffs, bar charts comparing layoffs across sectors and funding stages, and tables presenting detailed information. A key aspect of the analysis was exploring the correlation between the amount of funding a company received and the extent of layoffs. These visualizations provide an intuitive understanding of layoff trends during the pandemic.



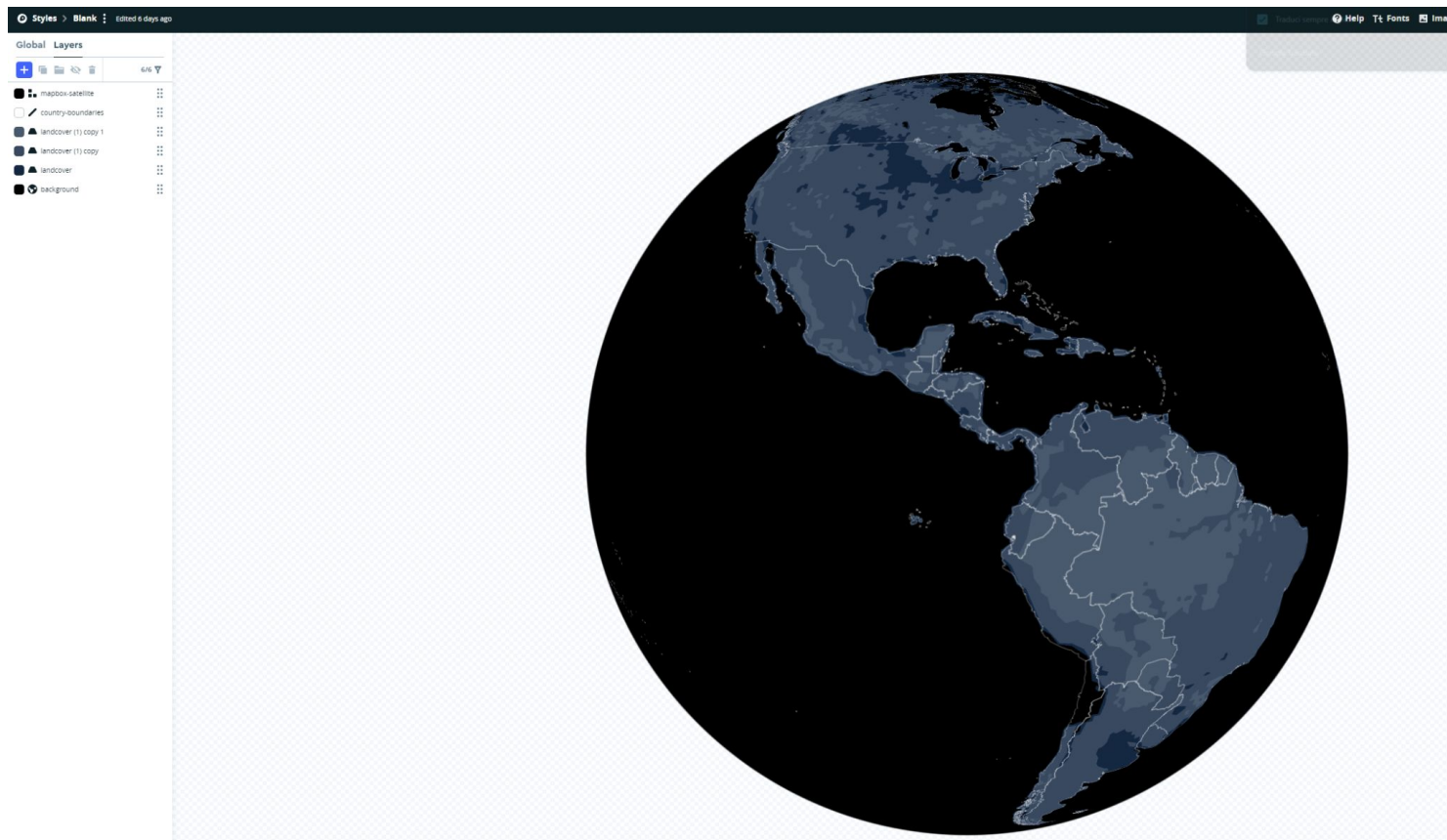
Roboto Medium
Roboto normal

[Layoffs of 2022](#)

The background of the slide is a solid dark blue. In the top right corner, there is a decorative geometric pattern consisting of several squares and triangles in different shades of blue, including a medium blue and a very dark blue. The word "Tableau" is written in a white, sans-serif font on the left side of the slide.

Tableau

Creating a custom map style with mapbox.com



COMPANY LOCATION COUNTRY STAGE INDUSTRY ANNO LAYOFF

(Tutti) (Tutti) (Tutti) (Tutti) (Valori multipli) (Tutti)

Affirm	San Francisco	United States	Post-IPO	Finance	2023	500
Amount	Chicago	United States	Unknown	Finance	2023	130
Appgate	Miami	United States	Post-IPO	Security	2023	34
Articulate	New York City	United States	Series A	Education	2023	38
Autodesk	San Francisco	United States	Post-IPO	Other	2023	250
Bark	New York City	United States	Post-IPO	Retail	2023	126
Basis Technologies	Chicago	United States	Series B	Marketing	2023	40
Beam Benefits	Columbus	United States	Series E	Healthcare	2023	31
Betterment	New York City	United States	Series F	Finance	2023	28
BitSight	Tel Aviv	Israel	Unknown	Security	2023	40
Bittrex	Seattle	United States	Unknown	Crypto	2023	80
Blackbaud	Charleston	United States	Post-IPO	Other	2023	500
Bolt	Lagos	Nigeria	Series F	Transportation	2023	17
Byju's	Bengaluru	India	Private Equity	Education	2023	1,500
Catch.com.au	Melbourne	Australia	Acquired	Retail	2023	100
Cerebral	San Francisco	United States	Series C	Healthcare	2023	285
Chainalysis	New York City	United States	Series F	Crypto	2023	44
Chipper Cash	San Francisco	United States	Series C	Finance	2023	100
Clari	San Francisco	United States	Series F	Sales	2023	20
Collective Health	San Francisco	United States	Series F	Healthcare	2023	54
CommerceHub	Albany	United States	Acquired	Retail	2023	371
Crunchyroll	Tokyo	Japan	Unknown	Media	2023	85
Deliveroo	London	United Kingdom	Post-IPO	Food	2023	350
Dell	Austin	United States	Post-IPO	Hardware	2023	6,650
DigitalOcean	New York City	United States	Post-IPO	Infrastructure	2023	200
DocuSign	San Francisco	United States	Post-IPO	Sales	2023	680
DraftKings	Boston	United States	Post-IPO	Consumer	2023	140
Drift	Boston	United States	Acquired	Marketing	2023	59
Dropbox	Berlin	Germany	Unknown	Retail	2023	60
EMX Digital	New York City	United States	Unknown	Marketing	2023	100
EVgo	Los Angeles	United States	Post-IPO	Transportation	2023	40
Eat Just	San Francisco	United States	Unknown	Food	2023	40
Electric	New York City	United States	Series D	Other	2023	141
Electronic Arts	Baton Rouge	United States	Post-IPO	Consumer	2023	200
Equitybee	San Francisco	United States	Series B	Finance	2023	24
Ericsson	Stockholm	Sweden	Post-IPO	Other	2023	8,500
Ethos Life	San Francisco	United States	Series D	Finance	2023	50
Eventbrite	San Francisco	United States	Post-IPO	Consumer	2023	80
Evernote	San Francisco	United States	Acquired	Consumer	2023	129
Exterro	Portland	United States	Private Equity	Legal	2023	24
Ezoic	San Diego	United States	Series A	Infrastructure	2023	10
FarEye	New Delhi	India	Series E	Logistics	2023	90
Fireblocks	New York City	United States	Series E	Crypto	2023	30
Getir	New York City	United States	Series E	Food	2023	100
GitLab	San Francisco	United States	Post-IPO	Product	2023	130

Analyzing layoff data from the last four years, we see a significant peak in January 2023, and then a new peak in January 2024. This raises the question of whether we are about to see the start of a new round of layoffs. An important aspect to highlight is our ability to filter companies in the table by clicking on the red graph to select the period of interest. This interactive functionality allows a more detailed and specific analysis based on the selected period.



LAYOFF MAP

Over the past four years, the global layoff landscape has seen significant changes, as illustrated in this comprehensive dashboard. The data displayed here provides an in-depth look at layoffs across various industries and regions from 2020 to 2023.

© 2024 Mapbox © OpenStreetMap

The global map highlights the geographic distribution of layoffs, with the size of each circle indicating the severity of layoffs in that region. The two bar graphs allow you to select the layouts by company stage and by sector.

2020
2023



STAGE



This dashboard highlights an interesting connection between layoffs and the funds raised by various companies. Cities with darker shades of red indicate higher fundraising and layoffs. This correlation could serve as an indicator to predict where the next layoffs might occur. However, it is important to note that multiple factors can influence these trends and we should consider this data as part of a bigger picture

RAISED



LAYOFF

