Unicorn Company Analysis

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About the project

This project aims to uncover the attributes of unicorn companies, valued at over $1 billion using SQLite and R Programming analysis. Specifically, it will investigate the following :

1. Which unicorn companies have had the biggest return on investment?
2. How long does it usually take for a company to become a unicorn?
3. Which countries have the most unicorns?
4. Which cities appear to be industrial centers?
5. Which investors have funded the most unicorns?

Data Information

The dataset used in this analysis contains records of 1060 unicorn companies obtained from data playground of Maven Analytics.

Company	=	Company name
Valuation	=	Company valuation in billions of dollars
Date Joined	=	The date in which the company reached $1 billion in valuation
Industry	=	Company industry
City	=	City the company was founded in
Country	=	Country the company was founded in
Continent	=	Continent the company was founded in
Year Founded	=	Year the company was founded
Funding	=	Total amount raised across all funding rounds in billions (B) or millions (M) of dollars
Select Investors	=	Top 4 investing firms or individual investors (some have less than 4)

Data Information

Company	Valuation	Date_Joi...	Industry	City	Country	Continent	Year_Founded	Funding	Select_Investors
Bytedance	$180B	2017-04-07	Artificial intelligence	Beijing	China	Asia	2012	$8B	Sequoia Capital China, SIG Asia Investme...
SpaceX	$100B	2012-12-01	Other	Hawthorne	United States	North America	2002	$7B	Founders Fund, Draper Fisher Jurvetson, ...
SHEIN	$100B	2018-07-03	E-commerce & direc...	Shenzhen	China	Asia	2008	$2B	Tiger Global Management, Sequoia Capit...
Stripe	$95B	2014-01-23	Fintech	San Francisco	United States	North America	2010	$2B	Khosla Ventures, LowercaseCapital, capit...
Klarna	$46B	2011-12-12	Fintech	Stockholm	Sweden	Europe	2005	$4B	Institutional Venture Partners, Sequoia Ca...
Canva	$40B	2018-01-08	Internet software & ...	Surry Hills	Australia	Oceania	2012	$572M	Sequoia Capital China, Blackbird Ventures...
Checkout.com	$40B	2019-05-02	Fintech	London	United Kingd...	Europe	2012	$2B	Tiger Global Management, Insight Partner...
Instacart	$39B	2014-12-30	Supply chain, logisti...	San Francisco	United States	North America	2012	$3B	Khosla Ventures, Kleiner Perkins Caufield ...
JUUL Labs	$38B	2017-12-20	Consumer & retail	San Francisco	United States	North America	2015	$14B	Tiger Global Management
Databricks	$38B	2019-02-05	Data management ...	San Francisco	United States	North America	2013	$3B	Andreessen Horowitz, New Enterprise Ass...
Revolut	$33B	2018-04-26	Fintech	London	United Kingd...	Europe	2015	$2B	index Ventures, DST Global, Ribbit Capital
Epic Games	$32B	2018-10-26	Other	Cary	United States	North America	1991	$7B	Tencent Holdings, KKR, Smash Ventures
FTX	$32B	2021-07-20	Fintech		Bahamas	North America	2018	$2B	Sequoia Capital, Thoma Bravo, Softbank
Fanatics	$27B	2012-06-06	E-commerce & direc...	Jacksonville	United States	North America	2002	$4B	SoftBank Group, Andreessen Horowitz, Te...

Data Cleaning

In this project we mostly use SQLite to clean the data and use R Programming in complex process.

Data Cleaning steps including :

- Check duplicates value
- Check missing value
- Strftime with date joined column into individual columns (Year, Month, Day)
- Drops rows that do not meet conditions (value < $1M and Unknow)
- Change format currency (ex. $1M ➜ 1000000)
- Fixing data types and spell errors

Data Exploration

Which unicorn companies have had the biggest return on investment?

Zapier, Dunamu, Workhuman, CFGI and Manner companies are the top 5 companies with the highest Return on Investment (ROI) among unicorn companies.

Company	Industry	Country	City	Continent	Date_Joined	Valuation	Funding	ROI
Zapier	Internet software ...	United States	Sunnyvale	North America	2021-01-14	4000000000	1000000	3999
Dunamu	Fintech	South Korea	Seoul	Asia	2021-07-22	9000000000	71000000	125
Workhuman	Internet software ...	Ireland	Dublin	Europe	2020-06-23	1000000000	9000000	110
CFGI	Fintech	United States	Boston	North America	2021-09-15	2000000000	19000000	104
Manner	Other	China	Shanghai	Asia	2020-12-24	1000000000	10000000	99
DJI Innovations	Hardware	China	Shenzhen	Asia	2015-01-23	8000000000	105000000	75
GalaxySpace	Mobile & telecom...	China	Beijing	Asia	2020-11-17	1000000000	14000000	70
Canva	Internet software ...	Australia	Surry Hills	Oceania	2018-01-08	40000000000	572000000	68
Il Makiage	E-commerce & dir...	United States	New York	North America	2022-01-10	2000000000	29000000	67
Revolution Precra...	Other	Philippines	Manila	Asia	2017-10-23	1000000000	15000000	65

Data Exploration

How long does it usually take for a company to become a unicorn?

This data reveals that while some companies achieved unicorn status immediately upon founding, the longest recorded journey to unicorn hood was 37 years. On average, startups took approximately 6.9 years to reach a valuation of one billion dollars.

The top 5 companies that achieved unicorn status in the shortest amount of time are Ola Electric Mobility, Devoted Health, Instacart, Revolut and Stripe.

Company	Industry	Country	City	Date_Joined	Year_Founded	how_long_to_become_unicorn
Ola Electric Mobility	Auto & transportation	India	Bengaluru	2019-07-02	2019	0
Devoted Health	Health	United States	Waltham	2018-10-16	2017	1
Instacart	Supply chain, logistics, &...	United States	San Francisco	2014-12-30	2012	2
Revolut	Fintech	United Kingdom	London	2018-04-26	2015	3
Stripe	Fintech	United States	San Francisco	2014-01-23	2010	4
Bytedance	Artificial intelligence	China	Beijing	2017-04-07	2012	5

Data Exploration

Which countries have the most unicorns?

It is interesting that United States has the largest share of unicorn company total 555 companies.

China and India, the countries with the largest share of the world population have 170 and 65 companies

Country	count(company)	Industry
United States	555	Other
China	170	Artificial intelligence
India	65	Edtech
United Kingdom	43	Fintech
Germany	25	Data management & analytics
France	23	Health
Israel	20	Cybersecurity
Canada	18	Fintech
Brazil	16	Fintech

Data Exploration

Which cities appear to be industrial centers?

City	Industry	num_company	Percentage
San Francisco	Fintech	222	20
Surry Hills	Internet software & services	203	19
Shenzhen	E-commerce & direct-to-consumer	109	10
Beijing	Artificial intelligence	84	7
Waltham	Health	73	6
San Francisco	Supply chain, logistics, & delivery	56	5
Hawthorne	Other	56	5
Boston	Cybersecurity	50	4
San Francisco	Data management & analytics	40	3
San Francisco	Mobile & telecommunications	37	3
Beijing	Hardware	34	3
Shanghai	Auto & transportation	31	2
Bengaluru	Edtech	28	2
San Francisco	Consumer & retail	24	2
Gurugram	Travel	14	1

Fintech and Internet software & services have about 39% of total unicorns.

The e-commerce & direct-to-customer industry also has a significant share of unicorns 10%.

Data Exploration

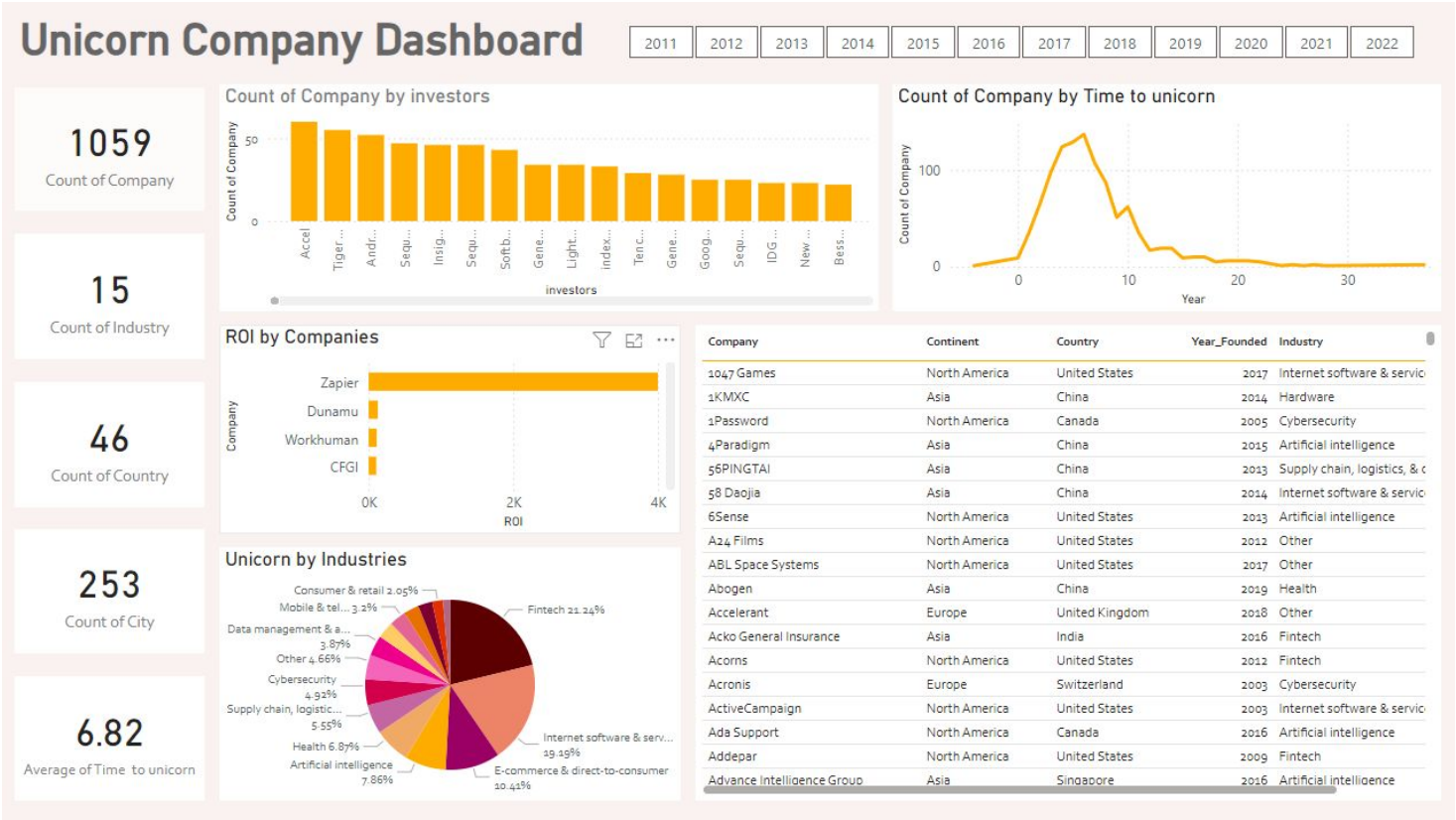
Which investors have funded the most unicorns?

The data shows that Accel is the top investor with 60 companies, followed by Tiger Global Management 55 companies and Andreessen Horowitz 53 companies.

Sequoia Capital and Sequoia Capital China may be the same company, but they are interested in investing in different companies.

investors	num_unicorns
<chr>	<int>
accel	60
tiger global management	55
andreessen horowitz	53
sequoia capital china	47
insight partners	46
sequoia capital	46
softbank group	43
general catalyst	34
lightspeed venture partners	34
index ventures	33

Data Visualization Dashboard



Company	Continent	Country	Year_Founded	Industry
1047 Games	North America	United States	2017	Internet software & servic
1KMXC	Asia	China	2014	Hardware
1Password	North America	Canada	2005	Cybersecurity
4Paradigm	Asia	China	2015	Artificial intelligence
56PINGTAI	Asia	China	2013	Supply chain, logistics, & c
58 Daojia	Asia	China	2014	Internet software & servic
6Sense	North America	United States	2013	Artificial intelligence
A24 Films	North America	United States	2012	Other
ABL Space Systems	North America	United States	2017	Other
Abogen	Asia	China	2019	Health
Accelerant	Europe	United Kingdom	2018	Other
Acko General Insurance	Asia	India	2016	Fintech
Acorns	North America	United States	2012	Fintech
Acronis	Europe	Switzerland	2003	Cybersecurity
ActiveCampaign	North America	United States	2003	Internet software & servic
Ada Support	North America	Canada	2016	Artificial intelligence
Addepar	North America	United States	2009	Fintech
Advance Intelligence Group	Asia	Singapore	2016	Artificial intelligence

THANK YOU