Unicorn Companies Analysis: Industry Trends & Investment Insights

Did you know that the average return from investing in stocks is **10% per year** 🔗 (not accounting for inflation)? But who wants to be average?!

You have been asked to support an investment firm by analyzing trends in high-growth companies. They are interested in understanding which industries are producing the highest valuations and the rate at which new high-value companies are emerging. Providing them with this information gives them a competitive insight as to industry trends and how they should structure their portfolio looking forward.

You have been given access to their `unicorns` database, which contains the following tables:

dates

Column	Description
`company_id`	A unique ID for the company.
`date_joined`	The date that the company became a unicorn.
`year_founded`	The year that the company was founded.

funding

Column	Description
`company_id`	A unique ID for the company.
`valuation`	Company value in US dollars.
`funding`	The amount of funding raised in US dollars.
`select_investors`	A list of key investors in the company.

industries

Column	Description
`company_id`	A unique ID for the company.
`industry`	The industry that the company operates in.

companies

Column	Description
`company_id`	A unique ID for the company.
`company`	The name of the company.
`city`	The city where the company is headquartered.
`country`	The country where the company is headquartered.
`continent`	The continent where the company is headquartered.

Data Validation and Initial Exploration

index	table_name	column_name	data_type
0	companies	company_id	integer
1	companies	company	character varying
2	companies	city	character varying
3	companies	country	character varying
4	companies	continent	character varying
5	dates	company_id	integer
6	dates	date_joined	date
7	dates	year_founded	integer
8	funding	company_id	integer
9	funding	valuation	bigint
10	funding	funding	bigint
11	funding	select_investors	character varying
12	industries	company_id	integer
13	industries	industry	character varying

Rows: 14   ⤢ Expand

...	c...	date_joined	year...
0	189	2017-06-24T00:00:00.000	1919
1	848	2021-06-01T00:00:00.000	2019
2	556	2022-02-15T00:00:00.000	2011
3	999	2021-11-17T00:00:00.000	2020
4	396	2021-10-21T00:00:00.000	2021

Rows: 5   ⤢ Expand

...	c...	v...	f...	select_investors
0	189	4000000000	0	EQT Partners
1	848	1000000000	100000000	Dragonfly Captial, Qiming Venture Partners, …
2	556	2000000000	100000000	Blackstone, Bessemer Venture Partners
3	999	1000000000	100000000	Goldman Sachs Asset Management, 3L
4	396	2000000000	100000000	Insight Partners, Softbank Group, Connect Ve…

Rows: 5   ⤢ Expand

...	c...	industry
0	189	Health
1	848	Fintech
2	556	Internet software & services
3	999	Internet software & services
4	396	Fintech

Rows: 5   ⤢ Expand

···	c...	···	company	···	city	···	country	···	contin...	···
0	189		Otto Bock HealthCare		Duderstadt		Germany		Europe	
1	848		Matrixport				Singapore		Asia	
2	556		Cloudinary		Santa Clara		United States		North America	
3	999		PLACE		Bellingham		United States		North America	
4	396		candy.com		New York		United States		North America	

Rows: 5   ↗ Expand

···	min_date_joined	···	max_date_joined	···	min_year_f...	···	max_year_f...	···
0	2007-07-02T00:00:00.000		2022-04-05T00:00:00.000		1919		2021	

Rows: 1   ↗ Expand

Your query ran successfully but returned no results.

···	m...	···	max...	···	avg_value	···	ma...	···	avg_fund	···
0	1000000000		180000000000		3455307262.5698323		0		14000000000	551042830.5400373

Rows: 1   ↗ Expand

Your query ran successfully but returned no results.

Your query ran successfully but returned no results.

Your query ran successfully but returned no results.

Industry Concentration and High-Growth Sectors

···	industry	···	num...	···
0	Fintech		173	
1	Internet software & services		152	
2	E-commerce & direct-to-consumer		75	
3	Artificial intelligence		53	
4	Health		52	

Rows: 5   ↗ Expand

···	⇅	industry	···	⇅	···	⇅	num...	···	⇅	avg_v...	···	⇅
0		Artificial intelligence			2019		14			4500000000		
1		Auto & transportation			2019		6			4166666666.67		
2		Consumer & retail			2019		3			3666666666.67		
3		Cybersecurity			2019		4			2250000000		
4		Data management & analytics			2019		4			11500000000		
5		E-commerce & direct-to-consumer			2019		12			2583333333.33		
6		Edtech			2019		1			1000000000		
7		Fintech			2019		20			6800000000		
8		Health			2019		3			3333333333.33		
9		Internet software & services			2019		13			4230769230.77		
10		Mobile & telecommunications			2019		4			2000000000		

Rows: 43   ⤢ Expand

Top Performing Industries and Valuation Trends (CTE-Based Analysis)

···		industry	···	···	num…	···	average_valuation_billions	···
0		Fintech		2021	138		2.75	
1		Internet software & services		2021	119		2.15	
2		E-commerce & direct-to-consumer		2021	47		2.47	
3		Internet software & services		2020	20		4.35	
4		E-commerce & direct-to-consumer		2020	16		4	
5		Fintech		2020	15		4.33	
6		Fintech		2019	20		6.8	
7		Internet software & services		2019	13		4.23	
8		E-commerce & direct-to-consumer		2019	12		2.58	

Rows: 9   ⤢ Expand

Speed of Value Creation (Time to Unicorn)

···		industry	···	num…	···	avg_years_to_unic…	···	median_years_to_unico…	···
0		Auto & transportation		31		5.03		4	
1		Artificial intelligence		84		5.89		5	
2		Hardware		34		5.94		5	
3		Mobile & telecommunications		38		6.32		5	
4		E-commerce & direct-to-consumer		111		6.43		6	
5		Fintech		224		6.54		6	
6		Travel		14		6.57		5	
7		Cybersecurity		50		6.8		6	
8		Supply chain, logistics, & delivery		57		6.93		6	
9		Edtech		28		7.71		6	
10		Other		58		7.78		6.5	
11		Internet software & services		205		7.87		7	
12		Data management & analytics		41		8.07		8	
13		Consumer & retail		25		8.08		5	
14		Health		74		8.19		6	

Rows: 15   ⤢ Expand

Capital Efficiency Analysis

	industry	num...	avg_valuation_funding_ratio	median_valuation_funding_ratio
0	Internet software & services	203	28.3	
1	Other	56	8.98	
2	Mobile & telecommunications	37	8.92	
3	Fintech	222	8.72	
4	Hardware	34	7.59	
5	Consumer & retail	24	7.5	3.
6	Data management & analytics	40	6.25	5.
7	Artificial intelligence	84	6	4.
8	Health	73	5.82	
9	E-commerce & direct-to-consumer	109	5.63	
10	Cybersecurity	50	5.58	
11	Edtech	28	5.39	
12	Auto & transportation	31	3.97	
13	Supply chain, logistics, & delivery	56	3.32	
14	Travel	14	2.93	2.

Rows: 15   ⤢ Expand

Year-over-Year Unicorn Growth Trends

	industry		num...
0	Artificial intelligence	2019	14
1	Artificial intelligence	2020	3
2	Artificial intelligence	2021	36
3	Auto & transportation	2019	6
4	Auto & transportation	2020	5
5	Auto & transportation	2021	4
6	Consumer & retail	2019	3
7	Consumer & retail	2020	1
8	Consumer & retail	2021	7
9	Cybersecurity	2019	4
10	Cybersecurity	2020	7

Rows: 43   ⤢ Expand

	industry		num…		prev_year_unic…		yoy_growth_percent…
15	Hardware	2021	14		1		1300
16	Supply chain, logistics, & delivery	2021	25		2		1150
17	Artificial intelligence	2021	36		3		1100
18	Fintech	2021	138		15		820
19	Consumer & retail	2021	7		1		600
20	Internet software & services	2021	119		20		495
21	Health	2021	40		9		344.44
22	Edtech	2020	4		1		300
23	Cybersecurity	2021	27		7		285.71
24	Data management & analytics	2021	21		6		250
25	Edtech	2021	12		4		200

Rows: 43   ⤢ Expand

	industry		num…
0	Artificial intelligence	2019	14
1	Artificial intelligence	2020	3
2	Artificial intelligence	2021	36
3	Consumer & retail	2019	3
4	Consumer & retail	2020	1
5	Consumer & retail	2021	7
6	Cybersecurity	2019	4
7	Cybersecurity	2020	7
8	Cybersecurity	2021	27
9	Data management & analytics	2019	4
10	Data management & analytics	2020	6

Rows: 29   ⤢ Expand

Valuation Concentration and Industry Risk

	industry	num...	avg_v...	median_val...
0	Mobile & telecommunications	38	2.34	1.5
1	Cybersecurity	50	2.58	2
2	Health	74	2.68	2
3	Internet software & services	205	2.9	2
4	Hardware	34	2.91	2
5	Supply chain, logistics, & delivery	57	3.11	1
6	Auto & transportation	31	3.19	2
7	Travel	14	3.29	2
8	Data management & analytics	41	3.32	2
9	Edtech	28	3.57	2
10	E-commerce & direct-to-consumer	111	3.84	2
11	Fintech	224	3.94	2
12	Consumer & retail	25	4.24	2
13	Other	58	4.34	2
14	Artificial intelligence	84	4.49	2

Rows: 15   ⤢ Expand

	industry	top_10_percent_valuation_share
0	Other	65.48
1	Artificial intelligence	64.99
2	Consumer & retail	60.38
3	E-commerce & direct-to-consumer	55.63
4	Supply chain, logistics, & delivery	53.11
5	Fintech	50
6	Edtech	49
7	Data management & analytics	47.79
8	Travel	41.3
9	Internet software & services	38.99
10	Auto & transportation	38.38
11	Hardware	36.36
12	Health	33.33
13	Cybersecurity	31.78
14	Mobile & telecommunications	31.46

Rows: 15   ↗ Expand

Valuation Stability and Market Volatility

		num...	avg_valuation_billions	stddev_valuation_billions	valuation_volatility_ratio
0	2019	104	4.39	6.12	1.39
1	2020	108	3.72	2.99	0.8
2	2021	520	2.29	2.44	1.07

Rows: 3   ↗ Expand