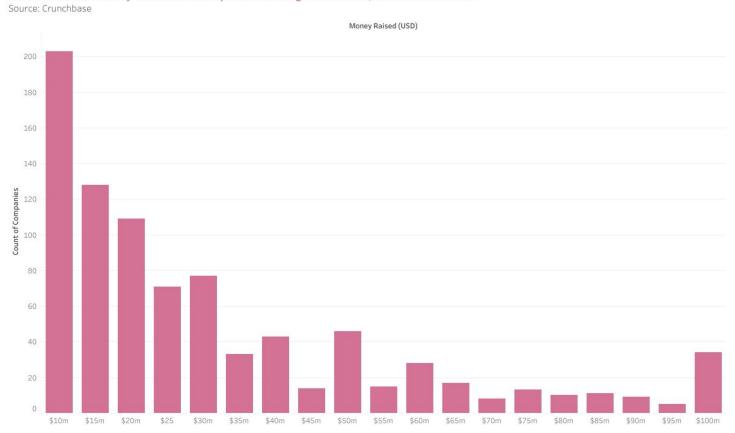
Histogram

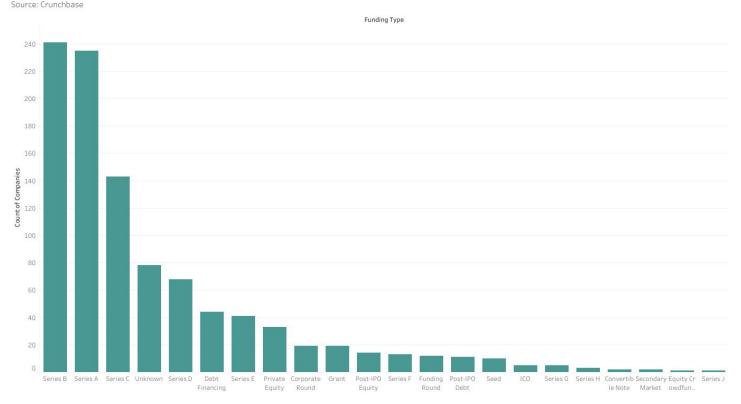
Distribution of Money Raised for Companies Raising More than \$10 Million in 2019



This graph shows the number of companies raising money at different levels. We can see that the most common bin is between \$10 million and \$15 million, and the amount then tapers off.

Barplot





First, I was interested to analyze companies raising more than \$10 million USD in 2019, so this dataset is filtered for companies that are raising greater than \$10 million. Then, I was interested to see which funding type* is the most common amongst these group of companies.

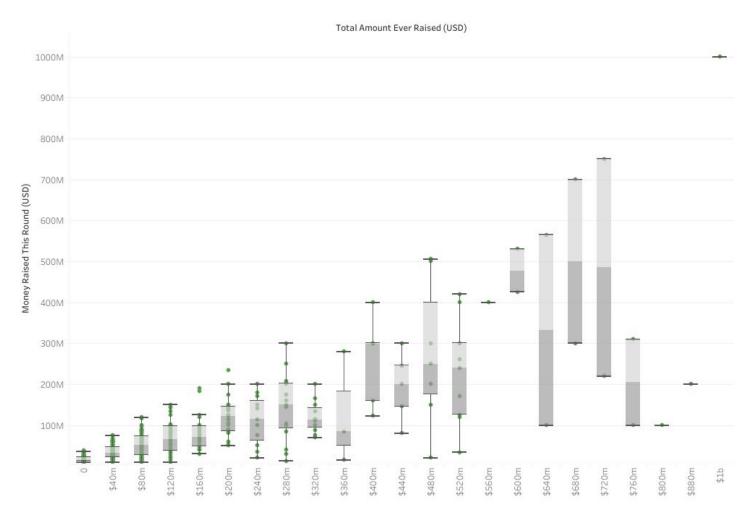
The plot shows a clear point: Series B and Series A are the most prevalent, and exponentially tapers off in frequency. This makes a lot of sense, seeing as Series A and Series B rounds are funding rounds for earlier stage companies and range on average between \$1M to \$30M.

*to see a full explanation of funding types, please see the appendix.

Boxplot

Does Total Amount Ever Raised Affect Money Raised This Round? Yes!

Source: Crunchbase



This boxplot shows a very interesting relationship between the total money ever raised* versus the total money raised this round. That is, if a company has raised more money in its history, it will likely raise a higher amount of money than a company that has raised less money in its history. This shows a clear positive relationship between total amount ever raised and money raised this sound, with a higher spread on companies that have previously raised a lot of money.

Scatterplot

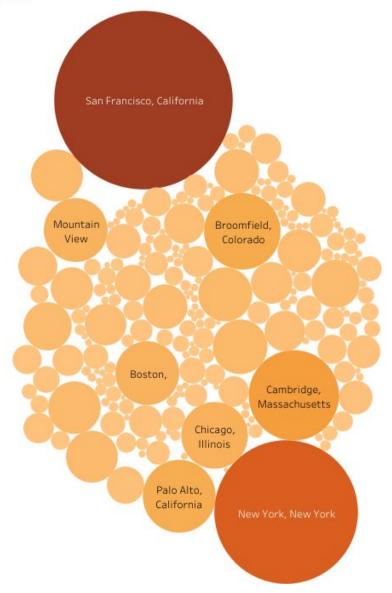


This scatterplot shows similar information to that of the boxplot. In my opinion, however, it shows a clearer relationship between total amount ever raised and total money raised this round. Further, it also shows that the funding type is scattered and does not display any discernible pattern.

Bubble Map

Funding Amount Grouped by Location (USD)

Source: Crunchbase



Money Raised Currency (in ...
10,000,000 148

The total amount of funding received was grouped by city and shown a bubble graph. We see that San Francisco is the by far the largest city that gets the most funding with the expected common players following such as New York, Cambridge, Palo Alto and Mountain View. Further investigation that explain these bubbles could be to look into very late stage companies that perhaps have IPO'ed in New York and San Francisco to explain the difference in size.

Choropleth Map



This choropleth graph shows the average seed funding amount. Interestingly, we see that countries outside the US actually have a very high amount of seed money raised (USD). Upon further investigation, we find out that countries in the US and similar countries, due to proximity to many funding sources, can easily acquire seed funding in small amounts. Startups in China and India, however, must go through complicated government regulations in order to get funding and hence tend to only go through a seed funding when a high amount is required.

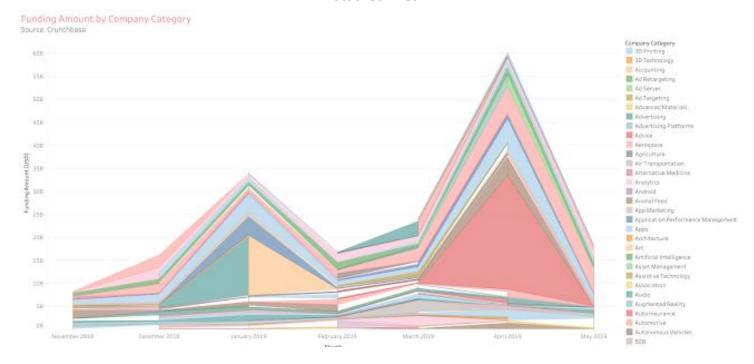
Heat Map



A funding stage indicates how mature a company is. We see that the young companies (early stage and seed) have a smaller number of rounds ever done, while larger companies will have a larger amount of funding as well as later

rounds. This makes a lot of intuitive sense, as later companies will have a larger number of funding rounds. It is interesting, however, to see that this relationship is not always linear but generally positive.

Stacked Area



This stacked area map shows the amount of funding that goes to each category. Upon further investigation, we see that the two companies that contribute to the peak in April 2019 is IvI5 and AlphaFlow, two prominent Customer Service companies.

Improvements to this graph include condensing the types of company category so the chart is more simplistic and interpretable in a non-interactive space.

Tree Map

Total Funding Amount by Company Segment Source: Crunchbase

Customer Service \$25.28	Commercial Real Estate \$13.08	Cloud Data Services \$4.4B		elivery 4.2B			Food and Beverage \$3.9B		Augmented Reality \$3.3B		alth e 0B	Total Fund \$0.0B	\$25.2B
			Internet \$2.5B		Credit \$2.4B			Finance \$2.0B	Clou		Media and		
	Aerospace \$7.58 Artificial Intelligence \$6.68												
Automotive \$17.28		Financial Services	Big D \$1.28			Angel							
		Biopharma \$1.5B	Credi Card:		FinTech		Art			Ai	ir		
		Real Estate \$1.5B	Digit	tal									
Biotechnology \$15.98	Analytics \$6.1B	Energy \$1.5B											
		Logistics \$1.4B	\$1.08										
	Apps \$4.5B	3D Printing \$1.3B		onsumer ending									
		Cyber Security \$1.3B	Data										

This is a tree graph that shows the total funding amount by the company segment. We see that Customer Service, Automotive and Biotech are the top three company segments for total amount of funding. We see that Artificial Intelligence also takes a substantial amount of funding at \$6.6 billion USD.

Summary

These charts are taken from the Crunchbase database, through my Crunchbase Pro account. Crunchbase provides information about startup companies and funding. These charts are able to summarize the state of funding and confirm some assumptions, such as the amount of total funding ever is related to the amount of future funding a company can raise, and that San Francisco is by far the largest attractor for funding. Some things that surprised me were how certain months (January 2019 and April 2019) had a significant peak of total amount of funding. However, upon further investigation, we discover that this can be explained by the presence of two significant companies.

<u>Appendix</u>

Angel: An angel round is typically a small round designed to get a new company off the ground. Investors in an angel round include individual angel investors, angel investor groups, friends, and family.

Pre-Seed: A Pre-Seed round is a pre-institutional seed round that either has no institutional investors or is a very low amount, often below \$150k.

Seed: Seed rounds are among the first rounds of funding a company will receive, generally while the company is young and working to gain traction. Round sizes range between \$10k–\$2M, though larger seed rounds have become more common in recent years. A seed round typically comes after an angel round (if applicable) and before a company's Series A round.

Venture - Series Unknown: Venture funding refers to an investment that comes from a venture capital firm and describes Series A, Series B, and later rounds. This funding type is used for any funding round that is clearly a venture round but where the series has not been specified.

Series A and Series B rounds are funding rounds for earlier stage companies and range on average between \$1M-\$30M.

Series C rounds and onwards are for later stage and more established companies. These rounds are usually \$10M+ and are often much larger.

Equity Crowdfunding: Equity crowdfunding platforms allow individual users to invest in companies in exchange for equity. Typically on these platforms the investors invest small amounts of money, though syndicates are formed to allow an individual to take a lead on evaluating an investment and pooling funding from a group of individual investors.

Product Crowdfunding: In a product crowdfunding round, a company will provide its product, which is often still in development, in exchange for capital. This kind of round is also typically completed on a funding platform.

Private Equity: A private equity round is led by a private equity firm or a hedge fund and is a late stage round. It is a less risky investment because the company is more firmly established, and the rounds are typically upwards of \$50M.

Convertible Note: A convertible note is an 'in-between' round funding to help companies hold over until they want to raise their next round of funding. When they raise the next round, this note 'converts' with a discount at the price of the new round. You will typically see convertible notes after a company raises, for example, a Series A round but does not yet want to raise a Series B round.

Debt Financing: In a debt round, an investor lends money to a company, and the company promises to repay the debt with added interest.

Secondary Market: A secondary market transaction is a fundraising event in which one investor purchases shares of stock in a company from other, existing shareholders rather than from the company directly. These transactions often occur when a private company becomes highly valuable and early stage investors or employees want to earn a profit on their investment, and these transactions are rarely announced or publicized.

Grant: A grant is when a company, investor, or government agency provides capital to a company without taking an equity stake in the company.

Corporate Round: A corporate round occurs when a company, rather than a venture capital firm, makes an investment in another company. These are often, though not necessarily, done for the purpose of forming a strategic partnership.

Initial coin offering (ICO): An initial coin offering (ICO) is a means of raising money via crowdfunding using cryptocurrency as capital. A company raising money through an ICO holds a fundraising campaign, and during this campaign, backers will purchase a percentage of a new cryptocurrency (called a "token" or "coin"), often using another cryptocurrency like bitcoin to make the purchase, in the hopes that the new cryptocurrency grows in value.

Post-IPO Equity: A post-IPO equity round takes place when firms invest in a company after the company has already gone public.

Post-IPO Debt: A post-IPO debt round takes place when firms loan a company money after the company has already gone public. Similar to debt financing, a company will promise to repay the principal as well as added interest on the debt.

Post-IPO Secondary: A post-IPO secondary round takes place when an investor purchases shares of stock in a company from other, existing shareholders rather than from the company directly, and it occurs after the company has already gone public.

Non-Equity Assistance: A non-equity assistance round occurs when a company or investor provides office space or mentorship and does not get equity in return.