

STARTUPS VIS

Process Book



University of Utah

CS6630

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GitHub Repository:

<https://github.com/LinJia00/2017-dataviscourse-project>

Website:

TODO

Table of Contents

1. BackGround Motivation and Overview	Error! Bookmark not defined.
2. Related Work.....	Error! Bookmark not defined.
3. Questions	3
4. Data	4
5. Exploratory Data Analysis.....	5
6. Design Evolution.....	6
7. Implementation.....	7
8. Evaluation.....	8

1. Background Motivation and Overview

October 28

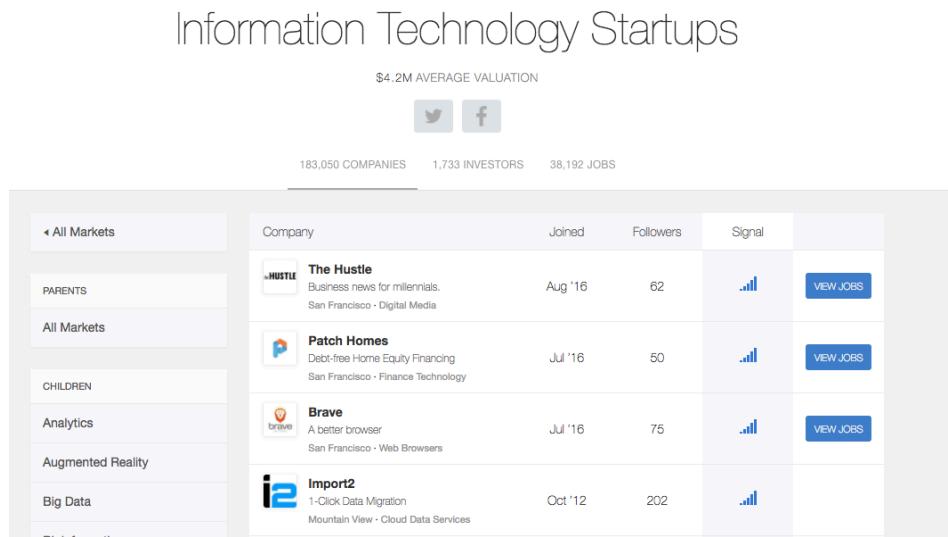
Angelis has a database of 342 thousand startups located in the United States. However, it doesn't provide us any visualization of it. So, our idea is visualizing these startups' features such as location, focused market, employee numbers, stage and total raised money. We believe that our project can not only extract fascinating insights and exciting visual effects but also it will be very useful for market analysis, job finding and recruiting.

2. Related Works

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Here is the website and pictures to show the startups information but it does not show a very detailed visualization. It cannot show to the users the comparisons between the startups. And it cannot give users a directed visualization in every aspect.

<https://angel.co/information-technology>



Here is a picture gives us an idea to show the stage of startups(last funding type).

<https://www.slideshare.net/ahmerk/business-model-analysis-and-market-research-for-startups-and-entrepreneurs>

STARTUP STAGE WISE APPLICATIONS



3. Questions

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- How is the trend of these companies growing? (For Users)
- what is the high chance market and location to get a job? (For Users)
- What is the best visualization for this dataset (For Ourselves)

We want to learn and accomplish: By this project, we hope to represent to users the information hidden in the abstract data with appropriate visualization. And, with editable parameters such as filters, we provide user a basic tool to explore the data. And We want to learn more ways to do better designs and how to let data show specifically to the users.

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- How to make a connection with market type, company number and year, and how to control its scale?
- How to aggregate the huge amount companies to show what are the top markets?
- To find a better mark to represent employee number.

4. Data

- a. Data source: <https://www.crunchbase.com>

b. Data Processing:

Our original dataset just likes this.

A	B	C	D	E	F	G	H	I	J	K	L
ID	Organization	Organization	Categories	Headquarters Location	Description	CB Rank (Company)	Founded Date	Funding Status	Company Type	Total Funding Amount	Number of Employees
1	/organization/Baremetrics	Business	Intelligence, Data Visualization, Cloud Computing	Birmingham, Alabama, United States	Unite Baremetrics is a data visualization and business intelligence company.	15,865	14-Oct-13	Seed	For Profit	\$800,000	3
2	/organization/Chrono.gg	PC Games		Alabama, United States	Unite Chrono.gg was founded by	16,398	2015	Seed	For Profit	\$1,325,000	2
3	/organization/ComplyMD	Service	Industry, Document Management, Health Care	Birmingham, Alabama, United States	Unite ComplyMD develops and	45,245	2004	Seed	For Profit	\$1,130,000	1
4	/organization/Curse	Video Games, Digital Media, Gaming		Huntsville, Alabama, United States	Unite Curse is a global multimed	3,117	2006	M&A	For Profit	\$58,000,000	4
5	/organization/Fleetio	Automotive, Fleet Management, Software		Birmingham, Alabama, United States	Unite Fleetio is a web-based fle	20,723	1-May-11	Seed	For Profit	\$750,000	1
6	/organization/GLOW	Beauty, Marketplace, Mobile Apps		Birmingham, Alabama, United States	Unite GLOW is a beauty on dem	23,470	2015	Seed	For Profit	\$320,000	2
7	/organization/Graphics	Nanotechnology, Industrial, Plastics and Rubber Manufacturing		Tuscaloosa, Alabama, United States	Unite Graphics is a woman-ov	55,697	26-Sep-12	Seed	For Profit	\$30,000	1
8	/organization/IllumiCare	Health Care		Birmingham, Alabama, United States	Unite IllumiCare Smart Ribbons	21,195	2014	Early Stage Venture	For Profit	\$5,760,000	2
9	/organization/KlouzCatch	Search Engine		Birmingham, Alabama, United States	Unite Klouz Catch is a web reser	71,754	2011	Seed	For Profit	\$40,000	1
10	/organization/LikeAl	Social Media Marketing, Photo Sharing		Birmingham, Alabama, United States	Unite LikeAl makes images successf	25,293	1-Aug-16	Seed	For Profit	\$50,000	1
11	/organization/MobularTec	Document Management, Software		Huntsville, Alabama, United States	Unite Mobular Technologies is an information managem	2000	2000	M&A	For Profit	\$7,000,000	3
12	/organization/MyAcademic	Big Data, Software, Education, Information Technology, Apps		Opelika, Alabama, United States	Unite MyAcademic is a college, degree, and emplo	59,531	2-May-11	Seed	For Profit	\$450,000	2
13	/organization/NitroPCH	Mobile, mHealth, Information Technology, Health Care		Alabama, United States	Unite NitroPCH is mobile patient	60,552	2014	Seed	For Profit	\$205,000	2
14	/organization/Not-IT	Gamification, Apps		Birmingham, Alabama, United States	Unite Not-IT is an online social ni	71,724	24-Apr-12	Seed	For Profit	\$55,000	1
15	/organization/Platypi	Mobile, Social Media Management, Web Design, Web Development		Birmingham, Alabama, United States	Unite Platypi is a digital marketi	36,978	1-Dec-13	Seed	For Profit	\$2,000,000	1
16	/organization/PublicLine	Telecommunications, PaaS, Video, Video Streaming		Birmingham, Alabama, United States	Unite PublicLine is a PaaS provider w	28,768	2009	Seed	For Profit	\$3,000,000	1
17	/organization/Saritech	Smart Sensors, Agriculture, Medical		Vanderboro, Indiana, United States	Unite Saritech Sensors designs	59,239	2011	Seed	For Profit	\$430,000	1
18	/organization/SequelYouth	Service Industry, Hospitality, Family		Huntsville, Alabama, United States	Unite We make images successf	21,053	1999	Private Equity	For Profit	\$66,000,000	2
19	/organization/Shift	Delivery, Grocery, E-Commerce		Birmingham, Alabama, United States	Unite Shift is a grocery delivery	2,056	2014	Early Stage Venture	For Profit	\$65,200,000	3
20	/organization/SiliconLabor	Hardware, Software		Huntsville, Alabama, United States	Unite Silicon Laboratories is an i	53,097	1996	IPO	For Profit	\$12,750,039	2
21	/organization/SwellFunds	Charity, Events, Hedge Funds, Non Profit, Financial Services		Birmingham, Alabama, United States	Unite SwellFunds provide	43,195	12-Nov-12	Seed	For Profit	\$500,000	1
22	/organization/TicketBiscuit	Software, Ticketing		Birmingham, Alabama, United States	Unite TicketBiscuit is a Birming	5,316	2001	M&A	For Profit	\$5,000,000	2
23	/organization/TransOMIC	Biotechnology, Medical, Pharmaceutical		Huntsville, Alabama, United States	Unite TransOMIC is a biotechnol	67,507	2012	Seed	For Profit	\$20,000	1
24	/organization/Tutem	Home Renovation, Internet		America, Alabama, United States	Unite Tutem is a home renova	57,208	1-Nov-14	Seed	For Profit	\$100,000	1

The original data has some important attributes includes:

- Organization: company name
- Categories: the company's industry
- Headquarters Location: company located in which state and city
- Founded Date
- Funding Status
- Total Funding Amount
- Number of Employees

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For our project design, we separate and make them more clearly for each chart.

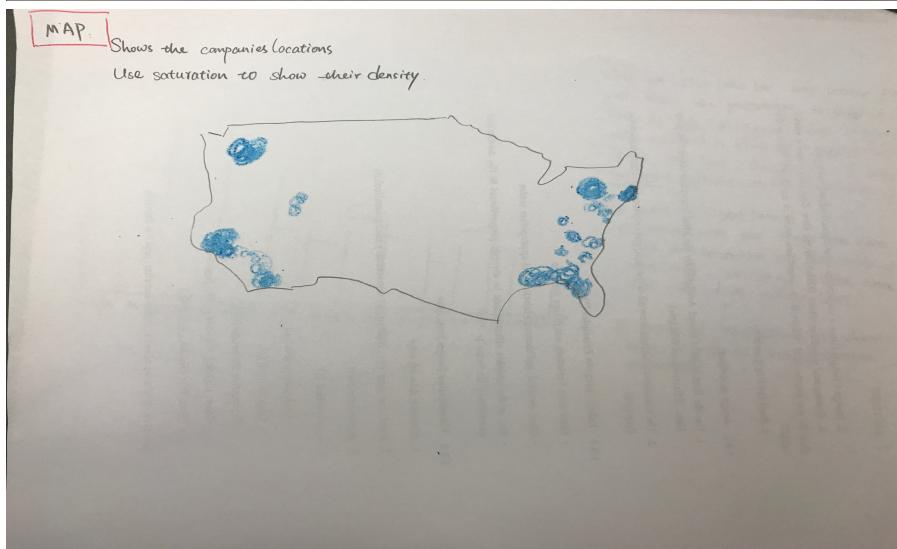
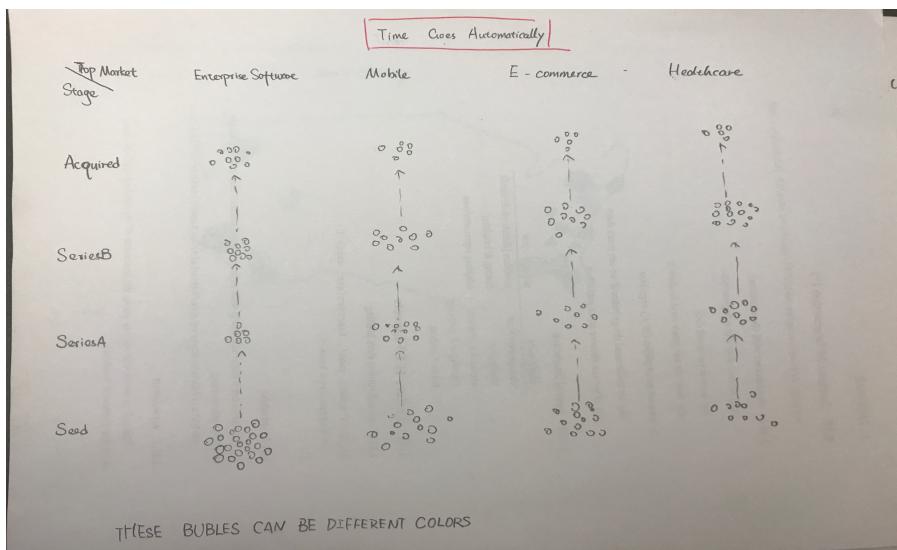
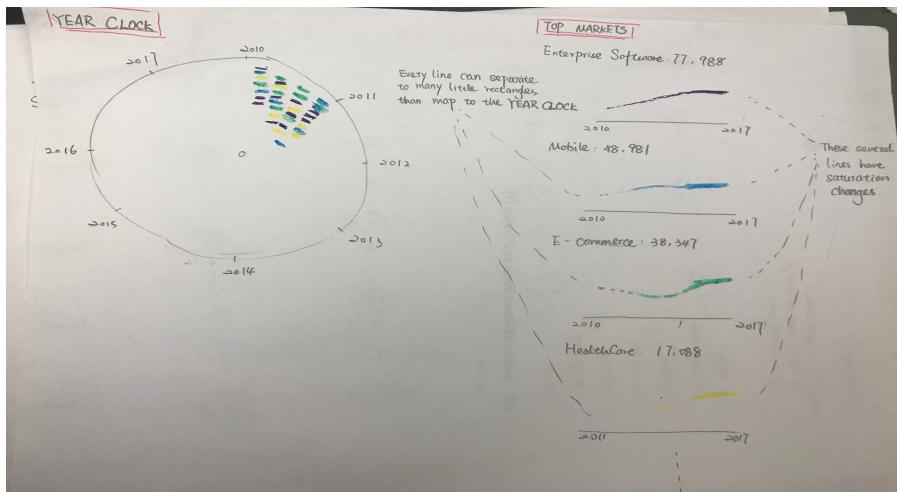
There are six csv file for our whole design:

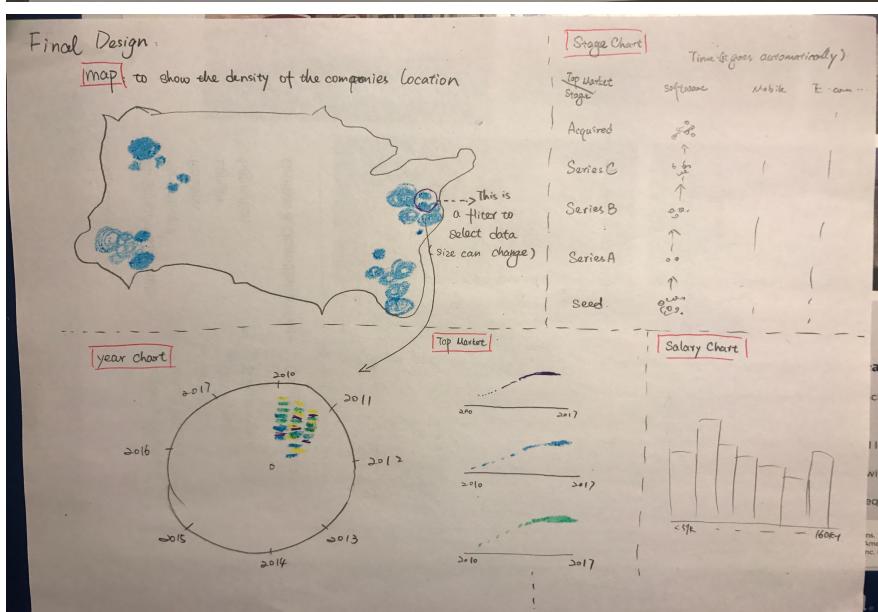
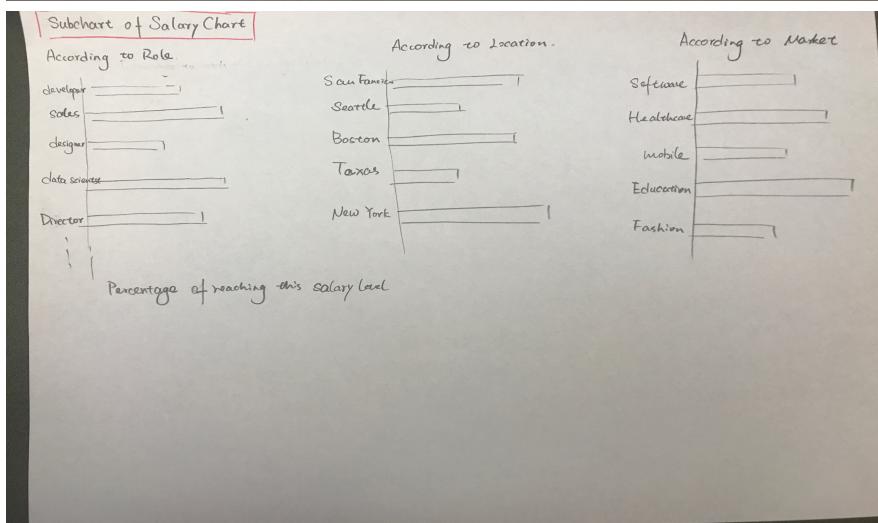
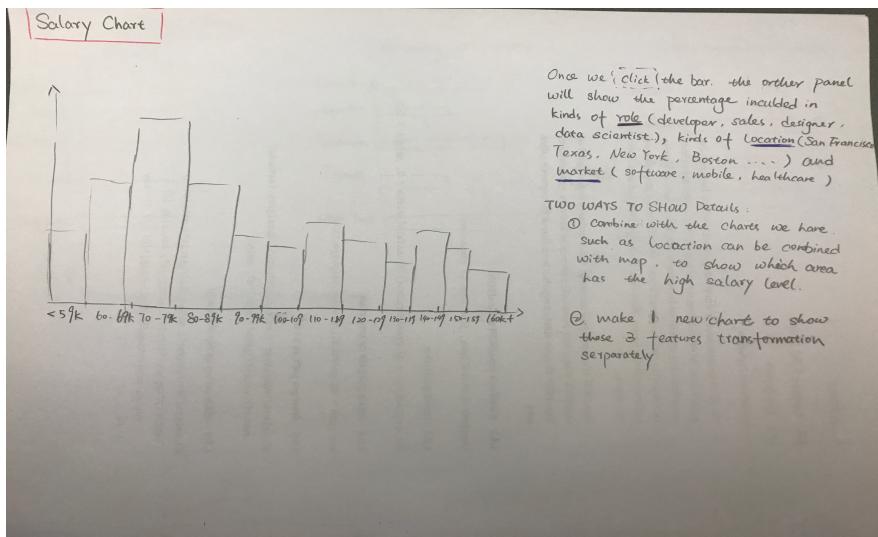
- count-by-city-market.csv
- count-by-city.csv
- count-by-market.csv
- count-by-year-market.csv
- employee-by-market.csv
- employee-by-state.csv

So, it will be easily to handle the data for each specific chart.

5. Exploratory Data Analysis

October 28



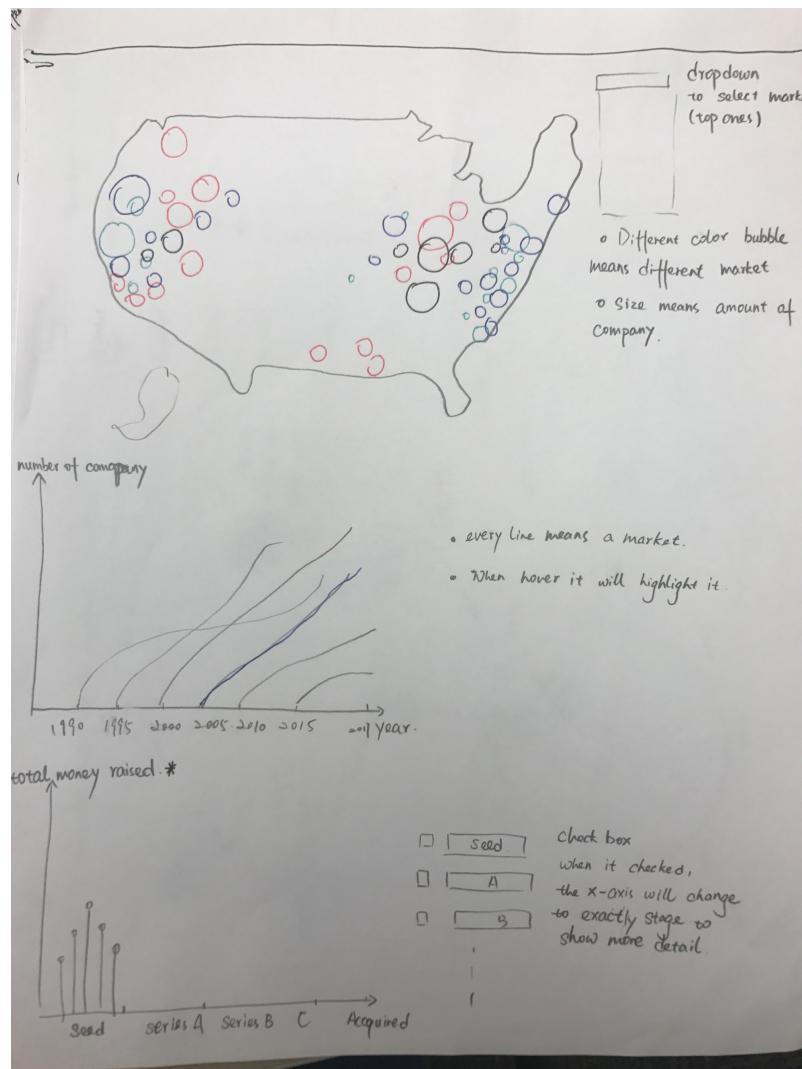


Above are we initial design. Even though our design is attractive and innovation, but at that time we haven't see the whole dataset. The real dataset we scraping from the website has some difference with our imagine. So, we make some improvements.

6. Design Evolution

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a. Redesign:



b. Description:

We have encountered some problem when we processing the dataset, so we changed some part of our design. But we will continue to improve the design to show the dataset and reach a better result.

7. Final Implementation

8. Evaluation