American Job Mapping Project Overview Shengwei Zhao July 2014

This project is to create a comprehensive "job map" from the various job board sites, like Monster. Our target is to help people find good paying jobs where people may get hands dirty –blue-collar opportunities.

I started from Monster to scrape all the jobs meeting the following criteria:

Category (blue-collar opportunities):

Biotech, building construction, customer support, engineering, food services, human resource, installation, transportation, manufacturing, medical, other, project management, quality assurance, security

Salary range: 35,000 minimum (livable wage)

Job Type: Full, Contract, Part-time, Temp

Education:
High school or college

These are general parameters for the scrape and I tried to turn the relevant data into a map. I scraped all the data from Monster since Monster doesn't provide an open API to easily get the information we need. I stored the data on Excel and then I used Google Fusion Table to visualize the data I scraped based on Geocoding provided by Google, which is relatively easy to map location on Google Maps. Later I provided filtering functionality based on job category, location and salary range. Also, the map can automatically centers and zooms in to the selected state.

Now it's a working prototype. Of course, there is a lot room for future improvement.

- 1. Real-time data. Now we only have data from Monster. Maybe we can aggregate all the data from various job board sites so that we can cover a wide range of jobs. Users can use it as a one-stop solution for job hunting.
- 2. More parameters for the advanced search functions. Now because of the limited information we get, we can only provide limited filtering functionality. It's obviously helpful if we can provide more advanced and customized filtering functions for

users to quickly find their ideal jobs.

- 3. Better data visualization. It's cool to use a map to visualize all the jobs. It's very straightforward for users to use our map to find jobs. Maybe we can provide more advanced visual features, for example, it will be awesome if users can take virtual tours of the companies they are interested in. We can integrate the function with Street View provided by Google Maps
- 4. Job push function. If I were in Philadelphia looking for jobs, I would love to get informed regarding job opportunities in this area.
- 5. Job review system. When you use Google Maps to search restaurants, you can see reviews of these restaurants on the map immediate. It will be great to do something similar when they search companies on our "job map".
- 6. This map can also be a "talent hub" where people can check in on our map so potential job seekers can connect with them and get insights/advice about the position/company. It's like a visual LinkedIn.
- 7.Because it's a map, it's easier for users to create a community and networking opportunities.
- 8. Users can directly create jobs on our map. If there is an open position, this can be a shiny dot or something different to let users know the company is hiring.
- 9. Provide other types of map like heat map or job summary map to provide insights for users from different perspectives and directions.
- 10. The map can also be a talent engine for companies. Users can create their profiles on our map so companies can also reach out to them.