Fixing the Flaws of Networking

An Alumni Directory of the Harvard Women's Lacrosse Program

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Abstract

Networking is one of the most important skills a person can develop in life. Academic credentials are important; however, your network of people is what will help you ultimately land a job and launch a career after college. In my own job search, I found that Harvard's alumni resources are out-of-date and unreliable. To solve this problem, I developed an accurate and functional alumni directory of the Harvard Women's Lacrosse Program. I compiled data using graduation data from Harvard resources as well as career and contact data from LinkedIn and Google. The goal of this project was to create a platform for members of the Harvard Women's Lacrosse Program to find accurate alumni information and create a better connected alumni community.

Background and Significance

Networking is one of the most important skills a person can develop in life. Grades are important; however your network of people is what will help you ultimately land a job and launch a career after college. As I was beginning my job search, I wanted to learn more about different industries so that I could better focus my search and optimize my application efforts. The best way to go about this would be to reach out to individuals in fields that interested me; however, it is more difficult to get a reply from someone who doesn't know or understand you than from someone with whom you have a mutual connection. So, because I am a member of the Women's Lacrosse Team and know the alumni as loyal, actively involved and supportive of the Women's Lacrosse Program, I turned my focus to this alumni group. However, I discovered that there was no way to locate our alumni or discover what they were doing; the only way to find an alum was to ask our coach for a specific person's contact information. No institutional knowledge or database existed about the alumni; knowledge kept in the Coach's head and was shared only by word-of-mouth. Thus, I found the need to create an alumni directory with accurate information.

Methods

I began this project by reaching out to the Assistant Director of Communications, Jeff Weinstein, for the Harvard Varsity Club and the Assistant Director of the Harvard Varsity Club, Jess Perillo, to gain access to information about Harvard Women's Lacrosse alumni. Mr. Weinstein sent me the link to the Varsity Letterwinners data and Ms. Perillo gave me access to an excel spreadsheet that included names and contact information of alumni. I used the Letterwinners data to create my own spreadsheet of names, titled WLAX_LETTERWINNER_DATA_complete.

In this Letterwinners spreadsheet, I included several other variables that I felt would be useful when searching individuals in the database. These variables included: Graduation Year, Last Year Earned Varsity Letter, House, Concentration, Secondary Concentration, Citations, Graduate School, Company, Role, Industry, Area, LinkedIn, and Website Other. I found the information for the "Graduation Year" and "Last Year Earned Varsity Letter" from the Letterwinners website. The Graduation Year variable corresponds to individuals' year of graduation and the Last Year Earned Varsity Letter variable refers to the last year recorded of an individual playing lacrosse and earning a varsity letter. Though I initially found the information for these variables from the Letterwinners website, I discovered that some of the data in the Graduation Year variable was incorrect when I cross checked it with University records on the Harvard Alumni Directory website. Assuming the graduation records on the Harvard Alumni Directory are official and correct, I used the graduation years found on the Harvard Alumni Directory and documented them in the Letterwinners spreadsheet. Using the Harvard Alumni Directory again, I found the information for the House and Concentration variables. These variables were important to include because the housing system at Harvard plays a significant role in a student's Harvard experience, thus housing affiliation is a useful conenction point, and concentration information is valuable to know as another connection point. I also used the Harvard Alumni Website to find some individuals' information about Graduate School. For variables Secondary Concentration, Citations, Graduate School, Company, Role, Industry, Area, and LinkedIn,, I searched individual names on Google and LinkedIn and recorded the information I found from LinkedIn profiles. I found that alumni who graduated in the 1980's tended not to have profiles on LinkedIn, so I found their information through websites on Google. I thus input these websites in the vairable, Website Other.

After compiling the Letterwinners data, I uploaded both datasets to RStudio and cleaned them. I then merged them using the command full_join() so that I would not lose any of the information; I named the new dataset data. From there, I needed to further clean the variables in the dataset to create a new dataset, data_1. The next step in preparing the Shiny web application was to find a dataset with coordinate information of cities in the United States. I chose to only find information regarding cities in the United States because the majority of the alumni was from cities in the United States. I found this dataset from the United States Cities Database. From this website, I downloaded the Excel file and imported it into R. I then selected the two variables I needed to correspond to the city and state variables in my greater dataset: city_ascii, state_id, lat, and lng. I then renamed city_ascii and state_id city and state, respectively. This

Home Locations of Alumni Based in the United States



Figure 1: Here is the output of the map.

preparation allowed me to then join the coordinate information with the greater dataset to create full_data, joining by the home_city variable with the city variable and the home_state variable with the state variable so that the coordinates would join by the correct cities and states.

After creating the full dataset, I shifted my attention to the map creation. I used the Leaflet package and found code online that created an interactive map of the United States. This was in preparation for what I would input into the Shiny server. The final step in my Shiny preparation was making the *full_data* dataset into an RDS file so that Shiny could use it.

To create the Shiny App, I began by loading in the full_data RDS file. When creating the ui, I made the opening tab the Map tab, which corresponded to the Leaflet map created in the prep file and copied to the Shiny server. This map demonstrates the Home Locations of Alumni Based in the United States and allows users to zoom in and out of it and click on certain points that correspond to names of alumni's home locations. These points were specified in the addMarkers() argument in the map's code. The second tab panel I created in the ui is the directory or Search tab. I created the duirectory using the DT package. I chose the following variables to include in the directory because they encompass enough information to find alumni without publishing confidential information such phone numbers: Name, Home City, Home State, Graduation Year, House, Concentration, Employer (which is company renamed), Role, Industry, Email, and LinkedIn. The DT package allowed for me to create a table with my selected variables by which a user can filter with any search input he or she desires. With a certain search input, the table will output any rows that contain any information that corresponds to the search input. I then added extensions to the table that made it responsive to the width of the web page and created buttons that allow users to copy the information to Excel or print it - both extensions for aesthetic purpose.

Harvard Women's Lacrosse Alumni

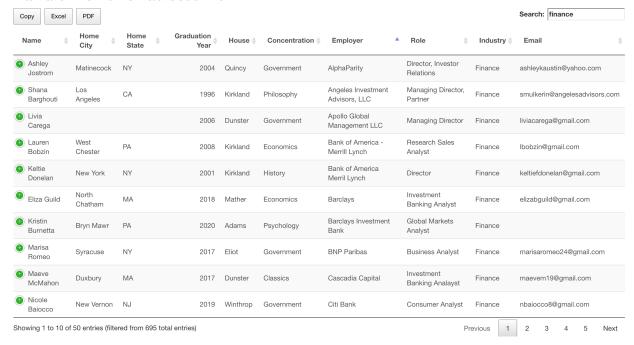


Figure 2: Here is output of the directory, filtered by alumni working in finance.

Conclusion

My goal for this project was to create a tool to allow members of the Harvard Women's Lacrosse community to find accurate information about Alumni. Initially I saw this as a tool that could be leveraged for a job search but I now know it has many utilities beyond that, including mentorship, career counseling, fundraising, community building, etc. The ability to access a population of individuals which shares an experience and passion for Harvard Women's Lacrosse is a powerful capabilty. The map allows users to see where alumni are located and the directory provides contact information. Ultimately, the platform will help foster a more connected community for the Harvard Women's Lacrosse Program and, for my teammates and me, it will help us immediately tap into the strength of our alumni network in our job searches.