



UMassAmherst  
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# Eros Erdős

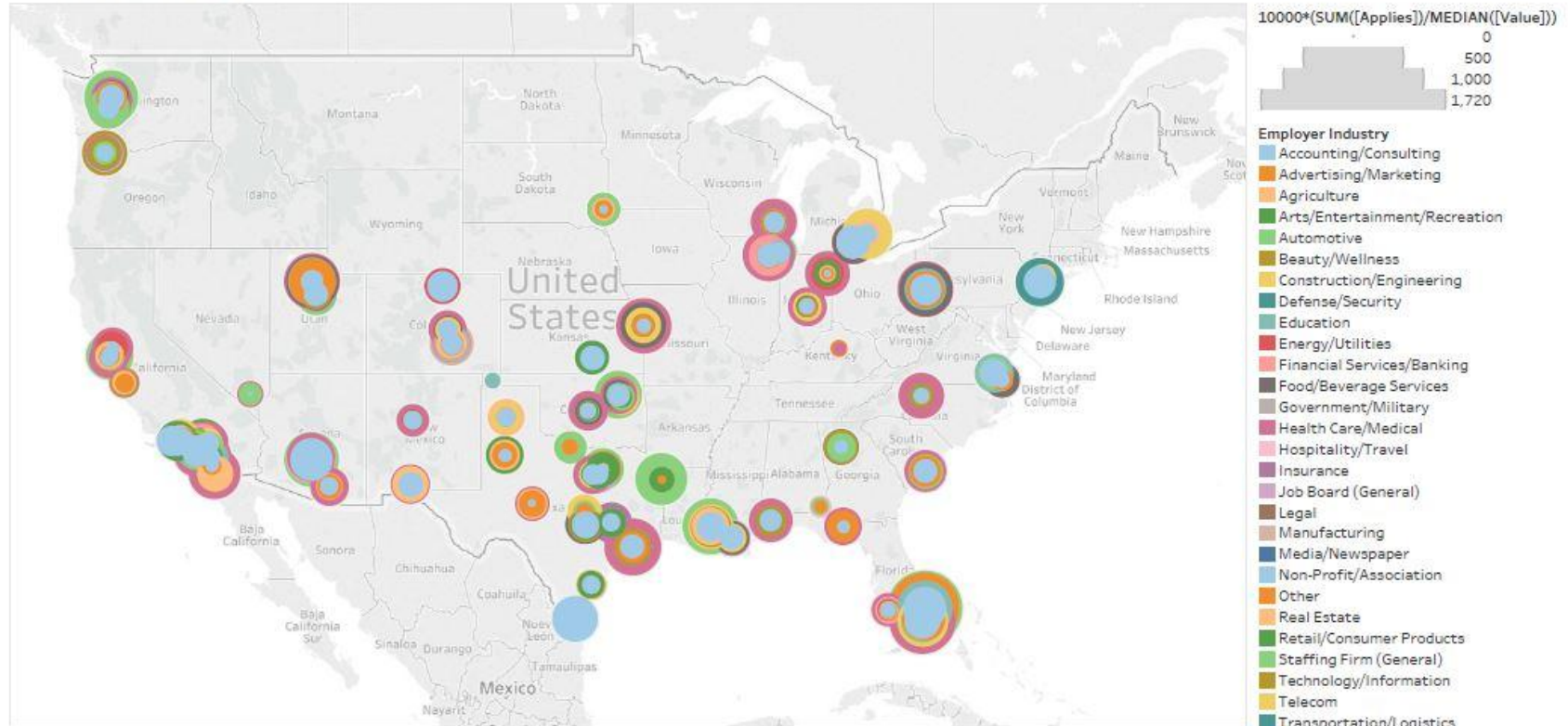
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Sunday March 25, 2018



# Mapping Industry Patterns

Using U.S. Census Information and Indeed Data Set: [GIF](#)



Map based on Longitude (generated) and Latitude (generated). Color shows details about Employer Industry. Size shows  $10000 * (\text{SUM}([\text{Applies}]) / \text{MEDIAN}([\text{Value}]))$ . Details are shown for City. The view is filtered on  $10000 * (\text{SUM}([\text{Applies}]) / \text{MEDIAN}([\text{Value}]))$ , which ranges from 0 to 1,720.

# Predict Overall Company Rating

with 75% Confidence

## Machine Learning Pipeline

Using a neural network, we are able to predict a company rating, and, by extension, a post rating using the other job posting data.

### Input

- employeeJobCount
- employeeCount
- descriptionLengthChars
- licenseRequiredJob
- noEducationRequirementsJob
- highschoolEducationRequirementsJob
- higherEducationRequirementsJob
- supervisingJob
- jobAgeDays
- city

### Process

- Neural Network takes in numerical data
- Trained on 90% of the data
- Tested on 10% of the data

### Output

- Estimate of overall company rating

- Predicting company rating
  - Given post characteristics
- Mapping industries and company sizes
  - Discovered industry hotspots by type and company size
- Using NN as function
  - Can optimize post characteristics
  - To approach target company rating
- Bottomline: **Tool to rate job posting before submission**