Thomas Plapinger

July 28, 2017

Data Science Jobs, Salaries, and Contributing Factors:

Research Report

**Executive Summary**

The goal of this report was to discover the national median wage for someone working in Data Science and to understand what attributes contribute to an employee earning more than the national average that we need to take into consideration when looking for new Data Scientists. To do this a we gathered information from thousands of job posts on Indeed.com across multiple U.S. Cities with a web scrapper. The results indicate that the national mean for an annual salary in the Data Science field is $73,680. After investigation the major contributing factors to a Salary above the national average my conclusion is that the major drivers of an above average salary are the location and holding knowledge of statistical software. It is recommended that the organization look for someone who has worked in the New York, Washington D.C., or San Francisco area who has held previous positions involving statistical software.

**Introduction**

Over the past few decades with the rise of the technological revolution the field of data science, and thus data science positions, has exploded with opportunity and it doesn’t appear that there is any decline in the data science boom any time soon. Forbes predicts that by 2020 Data Science/Analytics job openings are projected to grow by 15%, or 364,00 listings for a total of 700,000 annual postings, with the demand for Data Scientists and Engineers projected to grow by 39%. With this ever-growing field it is vital the top talent available is hired post haste as their possibilities to go elsewhere will only increase.

This report examines the national average wage in the data science field and what factors contribute the most to an individual earning a higher than average wage.

**Methods**

The data was gathered over several days using a web scrapper, which grabbed different attributes of job postings such as, Title, Company, Job Description and Salary from Indeed.com for 39 U.S. Cities. These cities were chosen initially because of their prime proximity to the data science world (particularly, cities like New York, San Francisco, and Washington, D.C.). Once the data was gathered it was then cleaned to sift out duplicate listings and those that did not contain salaries. Of the 7,680 listings gathered only 5.7%, or 441, of them contained salaries. Once the information was grounded down to those with salaries I began to form models based on location and job titles to determine the factors that contribute to an above average wage.

**Results**

It was discovered that the national average wage for the 441 useable postings we recovered was an annual salary of $73,680. The greatest contributing factors to the individual receiving hire than the average wage are if they have worked in cities like New York and Washington, D.C. and if there currently held a position title involved in research using statistical software.

**Interpretation of Results**

It can be seen from our analysis that the major contributing factors to an above average Data Science wage are rather unsurprising. With Washington, D.C., New York, San Francisco, and Boston all having high costs of living it is reasonable to expect the data scientists from those areas would have a greater expectation for their wages to compensate for the cost of their surroundings. The contributing factors in an individual’s title include their knowledge of statistics, software, and research. This gives us an inkling that while a great and growing number of jobs available to data scientists differ across many fields the primary focus of those discovered in during my search were software and research based and even largely based in the tech and medical fields.

**Conclusion/Recommendations**

The field of Data science is clearly growing at a rapid pace across multiple industries as more and more people are looking for a data driven model for their companies. For our purposes of looking to hire high quality individuals the best ways to attract them to our firm is by offering them a salary well above the national average in a data science hub. I will also recommend that the firm look for individuals in Data science from outside those hubs as it may be easier to save money on wages if the individual is used to a lower standard than those in hub cities.