

## The Rise of the Data Scientist

Data scientists are a rare breed. Part mathematician, part business professional and part computer programmer, these curious individuals play and discover in a world of big data, spotting trends and leading companies around the world.

### **What do they do?**

Today's businesses are overwhelmed with enormous amounts of data that modern technologies create. Data such as the online behavior of Linked In users, medical research tissue samples, purchasing habits of retail shoppers or crime statistics of major cities are what data scientists sink their teeth into, analyze it and create narratives to explain it. But they don't stop there. Based on their findings they then make suggestions on how to use the data to make informed decisions.

### **The Origins of Data Scientists**

#### A New Breed

Although this is a relatively new field, there are already thousands of data scientists currently working in startups as well as established organizations all around the globe. This proliferation is indicative of a marketplace saturated with large volumes of data never seen before.

#### Educational and Professional backgrounds of Data Scientists

EMC Corporation recently conducted their largest ever global survey of the data science community throughout countries such as the United States, France, Germany, The United Kingdom, China and India. Their findings indicate that the most common degree of data scientists at 24% was computer science followed by engineering at 17% and the hard sciences at 11%. Their survey also found that data scientists were 2.5 times more likely to have earned a master's degree and over 9 times more likely to have a doctoral degree as business intelligence professionals.

As for professional backgrounds, they were found to be diverse and include market research, information technology, financial analysis, marketing and media, management consulting, social research and the demographic and census research.

## **The Skills of Data Scientists**

Technical Skills – In order to really be able to dive into data and analyze it properly, data scientists have to have strong mathematical, statistical and computer science skills.

Interpersonal Skills – Data scientists don't just work with data, they work with people and must be real team players. Many companies hire based on this strength. If one area of knowledge isn't present, that can be taught, but teamwork skills are essential when working within an organization.

Communication Skills – Communication is more than just about getting ideas across; it's also about connecting the dots between hard analytics and a business leader's point of view. Communication also means sometimes showing data visually instead of telling it verbally. Sharing insights in the most streamlined way is essential if the organization is to turn data into effective processes.

Tool Mastery – Data scientists use a bevy of software tools to mine and analyze massive amounts of data. Not only do they have to be fluent with current tools but also be able to stay on top of the latest software trends.

## **Career Outlook for Data Scientists**

The Harvard Business Review recently called data scientists the “sexiest job of the 21<sup>st</sup> century,” citing a whopping 15,000% increase in job postings from 2011-2012. According to jobs.com, the University of California San Diego listed data mining and analytics as the second hottest career for graduates back in 2011. And, according to the Bureau of Labor Statistics, the demand for operations research analysts, who offer very similar services, is expected to jump 22% from

2008 – 2018. And finally, Glassdoor.com shows average data mining scientist salaries ranging from \$60,000 to \$115,000.

It would seem these rising stars of the data world will keep on rising in the near future and beyond.