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Career Options in Data Science

PRAKASH MENON   12/21/2017

The author is President, Global Retail Business, NIIT Ltd.

Over 2.7 Zetabytes of data exists in the digital universe today, which is more data than what we've seen in the last 5,000 years of human existence. To add, of all the digital data in the world today, almost 90 per cent was generated in the last two years alone! According to IBM, as of 2017, we're creating 2.5 quintillion bytes of data every day!! With organizations producing such high volumes of data, the need for qualified data scientists, to analyze and predict, is increasing. So much so, that an entire industry is developing around 'Big Data'. US alone will face a shortage of more than 150,000 data analysts and an additional 1.5 million data-savvy managers. Back home, we have around 50,000 job opportunities for data analytics professionals and the number is expected to rise to 100,000.

But who qualifies as a data-savvy professional? Simply put, these are specialists who retrieve data from various sources and analyze it to get valuable insights that shape business strategies and align processes. In fact, data science is the sexiest career option of the 21st Century. Don't believe us? Ask the Harvard Business Review.

What makes data science a lucrative career path and what are the prospective options? Let's understand.

Decoding Data Science

Data Science is a wide, interdisciplinary field. Also known as data-driven science, this involved gaining valuable insights from data through scientific methods, systems, and processes. This data can be retrieved from, Social Media, Sensors, Click Streams, GPS Plots, Log Files and Customer Transactions. With every swipe, click, like, and share businesses are using data to make critical decisions. In fact, current output of data is roughly 2.5 quintillion bytes a day. This is huge! This immense volume of data creates several job opportunities ranging from simple data related jobs to complicated data engineering and data analysis jobs.

Career Options Galore in Data Science

If you are dreaming of building a career in this lucrative and demanding sector, you won't be disappointed as the number of job opportunities is huge! The various positions available for students and professionals pursuing data science are listed below:

- Data Infrastructure Engineer

As a data engineer you need to deal with the Big Data Infrastructure. This position is quite different as you need to look after systems and hardware that help in data management activities of a company. These hardware and systems are used to store, process, and analyze digital data's huge repository of a company. The Data Engineers are responsible for managing and expanding these systems and hardware. For this position, professionals must have knowledge of technology and programming skills. They should also know how to deal with hardware. Candidates should have advance technical degrees.

- Data Analyst

The job of Data Analysts is to produce reports and presentations from data sets. They may have to analyze the consumer data set and dense financial data etc. for gleaning insights and making strategic recommendations. Moreover, they also organize messy data in such a format that it can be accessed easily. If you are interested in this job, you must have good command over data presentation programs and Excel. You need not be required to have knowledge of programming and technology. However, even though position is one of the lower-level positions in this sector, there are chances of growing and moving into higher positions. The annual starting salary for data analysts in India is around Rs. 11 lakhs.

- Data Management Professionals

It is an IT role in which you need to deal with Database, SQL, and Apache. You need not to do anything like data analysis. As a data management professional, you must work hard to have close watch on many different threads without further ado. You need to do different jobs according to the necessity. You can expect an annual average salary of up to INR 16 Lakhs.

- Business Analyst

Business analysts are intended to deal with collected and maintained data. They need to focus on marketing campaigns' impact and analyze it with the help of complex data sets so that they can know how industry will work in the future. They also need to make potential business plans so that possible outcomes should be derived. As a part of the job, they may also have to create presentations and reports etc. For this position, you must have interest in complex calculations and business management and development. Salaries for Business Analysts can go up to Rs. 20 Lakhs per annum.

- Machine Learning Researchers or Engineers

In this age of automation, it has become important to analyze data to get intelligence and insights. These researchers analyze data and make predictions for their companies. Their main role is to look after technology and programming and partially analyze it. So, to make a living as a machine learning engineer, the candidate must have good knowledge of statistics, learning theory and algorithms along with programming skills. You also need a degree in programming or software development. Candidates can expect an average salary of around INR 40 Lakhs per annum

- Data Science Managers

A data science manager can come from any background but he/she should have a keen understanding if the entire data science landscape. Structured thinking, analytical skills, storytelling skills (using data), motivational skills and team management are some of the key skills of a data science. Another important aspect of a data science manager's job is to identify and recruit the data engineers, researchers, data scientists and SMEs to the team. Their job is to solve different business problems using data science by putting the right people on the right problem. They basically manage the entire data science process. Once you take up the role of a data science manager, you can keep moving up the organizational hierarchy and even assume the role of Chief Digital Officer or Chief Information Officer. Top talent in this space up can command salaried up to and beyond Rs. 3.5 crore mark.

Training for an organizational decision making

Keeping in view the exciting opportunities data science holds for professionals, it is the right time to sign up for a course that helps you build a career in this emerging field. One such course is IIM Calcutta's Advanced Program in Data Sciences available on www.training.com. It has been developed keeping in mind the needs of working professionals that aim to become Data Scientists. The course teaches you many cutting-edge data science concepts like Machine Learning, Optimization, Data Representation, Data Visualization, Categorical Data Analysis, Data Warehousing, Distributed Processing using Hadoop and MapReduce and much more. Executives in the management field can also pursue this course for obtaining knowledge of the data science landscape, quantitative techniques and to sharpen their analytical skills.

The first batch for the course saw attendance from top professionals, having an average work experience of 9 years, from organizations like JP Morgan Services India, HSBC, Bosch, E&Y, Morgan Stanley Advantage Services, Capgemini, PWC, Ericsson, Oracle, Philips, Nomura Services, IBM, Cognizant, Infosys, Wipro, MindTree etc.

What makes this course best in class?

- **Top Tier Certification** – Get a certificate of successful completion from the prestigious by Indian Institute of Management, Calcutta
- **Alumni Status** – Receive MDP Alumni Status from IIM Calcutta on successful completion of the program
- **Live Online Classes** – Attend the live, virtual interactive classes led by eminent IIMC faculty from anywhere using your computing device and an internet connection

India's analytics industry is expected to nearly double by 2020. Around 12,000 freshers were added to the analytics workforce in India this year, up from 8,500 last year. And this number will only grow. To build a successful career in data science field, approach everything with an analytical bend of mind and build a portfolio of compelling projects. This will help you present a compelling case to the hiring manager on your dream data science team.

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