

How to make a career in Data Science & Analytics

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If you love numbers and data, and have an analytical mindset, you can make a career in Data Science & Analytics by picking up few technical skills

Today, the availability of data and demand for data-driven decision-making has skyrocketed. This has led to large-scale collection, storage, management, and analysis of data generated across multiple channels within organizations. Hence, there's no denying that Data Science and Analytics have become hot subjects for students to pursue of late.

Moreover, the growing use cases of emerging technologies are only adding to their overall appeal. These technologies generate more datasets - down to the level of metadata - that need to be constantly identified, stored, analyzed, and structured for higher efficiency operations. The big global data and business analytics market size was valued at \$193.14 billion in 2019. By 2027, it is projected to reach \$420.98 billion, growing at a CAGR of 10.9 per cent. This means demand for analytics jobs will further increase across sectors. The future demand is likely to be high in retail, e-commerce, BFSI, manufacturing, healthcare, etc.

In this regard, let's look at how you can best prepare and skill yourself for this burgeoning market.

▼ Create a Roadmap for Yourself

Many of you are obsessed with data and data science. This has indeed left you asking about what skills are needed to pursue careers in data science. To begin with, you need a proper roadmap that perfectly aligns with your interests.

Data science and analytics market is a broad segment with several roles, applications, and approaches. You will have to zero in on what exactly you wish to do? While Google will want you to shape business and technical strategies as its Quantitative Analyst by processing, analyzing, and interpreting massive datasets, Amazon will want you to create and deliver a roadmap of the most challenging Machine Learning business problems as its Data Scientist. In the segment, some of the roles include Data Analyst, Data Engineer, Database Engineer, Machine Learning Engineer, Data Scientist, and Data Architect, to name a few. So, do your research and find what augurs well with your core competencies and interests.

Next, you will have to prepare yourself for that role. One of the best ways to do so is to enroll yourself in online courses, boot camps,



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and an advanced degree program. Several certification-based professional upskilling programs are offered by renowned universities and tech platforms that can make your CV stand out against others. You can pick a program as per your needs and availability. For instance, Udacity has nano degree programs, wherein you can engage in 4 to 8-week courses to upskill yourself. Similarly, several online learning platforms such as Udemy and Coursera enable you to drive learning at your own pace.

You must also develop additional skills in statistics, mathematics, and programming. It would help if you focused specifically on statistics, computer science, physical sciences, linear algebra and calculus, and social sciences for your choice of major.

In addition, choosing a STEM major at an early stage of a career will allow you to get exposure to the field early and create a solid base in applied math and statistics, which is a crucial skill for analyzing the massive volumes of data and data trends collected by organizations.

▼ Analytical Mindset and Soft Skills

Now, it's essential that as a data analyst or scientist, you must possess an analytical mindset to be effective in your role. Analysts and scientists don't approach a question or problem with a preconceived answer. They use data to conclude. Data research also plays a vital role and will help you better understand how to

leverage a chunk of data in your current position. Further, skills like communication, organization, project management, leadership, and critical thinking are essential regardless of any industry. A few other soft skills that are good to pick up include:

Strong Business Acumen: Possessing this skill will help you identify any problem and potential challenges that need to be solved for an organization to grow. Remember, you will have to engage with business stakeholders to convince them about your technological idea. If it is not aligned with the core business interests, it might not be able to gather steam. So, try to develop business acumen, especially the company's key objectives that you aim to or are working for.

Strong Communication Skills: As a data scientist or analyst, it isn't just about how to extract, understand, and analyze data. You should also be able to effectively communicate your findings with other team members in an easy-to-comprehend way.

Great Data Intuition: While learning technical skills is essential, data intuition is one of the most critical skills for a data scientist. This makes data scientists or analysts more efficient in their work, and gaining this skill comes from experience and the proper training.

In addition to these soft skills, you will also need to learn the technical skills necessary to perform the job.

▼ Technical Skills

By now, you have understood that data analytics means statistical analysis and computing, mining, extracting, and processing large data sets. To do so, some of the most in-



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demand technical, analytical skills that you need to learn include machine learning, predictive analytics, data visualization, MapReduce, etc. Besides, it is equally imperative to have an understanding of:

Programming: A basic knowledge of various programming or coding languages, such as Python, Perl, C/C++, SQL, and Java, is required in data science roles. These programming languages help data scientists organize unstructured data sets.

Knowledge of SAS and Other Analytical Tools: You are also required to understand analytical tools for extracting valuable information from an organized data set. Some of the most data analytical tools that you can learn and use are SAS, Hadoop, Spark, Apache Hive, Apache Pig, MongoDB, and R. Certifications can help you establish your expertise in these analytical tools.

In a nutshell, you can't become a data analyst or scientist overnight. There is no shortcut to becoming a data analyst. If you love numbers and data, you can enter the profession by acquiring the skills mentioned above. If you are somebody who is into numbers and has an eye for spotting patterns, you will find the career as exciting as it can get! ■

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