Becoming a Data Scientist, Data Analyst, Financial Analyst and Research Analyst

Data science is considered as the most demanding job of the 21st century. If we are planning to enter into the field of data science, our aim is to become a **Data Scientist** as it's the most coveted post these days.

Though some may even opt for the position of a **Data Analyst**, it's still **second** in the race as the most preferred position for many aspirants is still the post of a **Data Scientist.**

If playing with data and finding hidden insights where others don't see it or find it something that we love and want to take up as our career, we may even consider being a **Financial Analyst**, or a **Research Analyst**.

Though we will come across several career choices that let us stay close to data and figures, the one that wins hands down is a **Data Scientist.**

But it shouldn't mean that just because everyone else is aiming for this post, we too should join the bandwagon. We will need to understand what the job entails, the kind of skills and aptitude we will need, the pay package we will get, the chances of furthering our career that we will have, etc. before taking our final pick.

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Let's delve deeper to take a look at the different positions that we may consider in order to arrive at a well-informed decision.

1- Becoming a Data Scientist

Whether we are a student or a professional looking to shift career, positioning ourselves for a data science career could be a smart move.

While students can pick up degree courses (which include programs in **data science and analytics**) run by several universities, professionals may pick up short-term courses conducted by reputed institutes or organizations.

They may even take up bootcamps if they are ready to slog it out and don't mind the intense learning sessions where a lot of information is packed in every session.

It's important to note here that though a majority of **Data Scientists** have backgrounds as statisticians or **Data Analysts**, we will also find others coming from non-technical fields such as economics or business.

So, just because we aren't proficient in coding and programming or don't have an IT background shouldn't stop us from pursuing a career in **Data Science**.

If we are wondering how professionals from diverse fields like economics, mathematics, statistics, business, IT, etc. end up in the field of **Data Science** and make it work in their favor, we should look closer to find that, they all have one thing in common:

- ***An ability to solve problems and communicate well along with an unquenchable curiosity about how things work and even look for problems that others might not have even though of.***

Apart from the qualities mentioned above, we'll also need a rock-solid understanding of the following to become a **Data Scientist**:

- **Statistics and mathematics**
- **AI and machine learning**
- **Coding languages like Python and R**
- **Data visualization and reporting technologies**
- **Databases such as MySQL and Postgres**
- **Hadoop, Apache Spark, and MapReduce**

Additionally, we should be able to able to work with unstructured data, which are undefined content that refuse to fit into database tables. Some examples of unstructured data include **blog posts,**

videos, video feeds, audio, social media posts, customer reviews, etc.

Since such data include heavy texts that are grouped together, sorting such data that isn't streamlined is an extremely tough task. No wonder why unstructured data is often called ***'dark analytics'*** due to its complexity.

As a **Data Scientist**, it's mandatory for us to have the skills necessary for understanding and manipulating unstructured data gathered from diverse platforms because this way, we will be able to unravel insights, which can prove to be helpful for informed decision making.

1.1- Typical job duties

The role of a **Data Scientist** doesn't come with a definitive job description. Here are a few things that we are likely to handle as a **Data Scientist**:

- Collecting a huge quantity of unstructured data, which is then transformed into a more usable format.
- Working with a wide range of programming languages such as Python, R etc.
- Leveraging data-driven techniques to solve business-related problems.

- Having a rock-solid grasp of statistics, including both Bayesian statistics and classical statistics
- Staying abreast of analytical techniques like deep learning, machine learning, and text analytics
- Collaborating with both IT and business cells and communicating the findings in lucid language to the stakeholders or clients
- Looking for patterns and order in data in addition to spotting trends that can help the bottom-line of a business.

1.2- Things to consider before accepting the job offer for the post of a Data Scientist

Before we accept a **Data Scientist** position, there are a few things about the organization that we should assess:

- **Does it give data its due value?**

  We should remember that a company's culture has a significant impact on whether it should employ a **Data Scientist**. So, apart from checking how much it values data, we should also see if it has an environment that supports analytics and if it already has **Data Analysts** involved. If not, we may be burdened with the

job of a **Data Analyst** too, which could become tiring and cumbersome soon.

- **Does it handle huge amounts of data and have complex issues that it wants to get solved?**

  The organizations that really require **Data Scientists** have two factors in common: They deal with massive amounts of data and face complex issues on a daily basis that needs to be solved. We will find these typically in industries such as pharma, finance, etc.

- **Is it willing to bring changes?**

  As a **Data Scientist**, we would expect that our recommendations are taken seriously and acted upon. We invest a lot of effort and time to find ways, which will let the organization/company we are employed with to function better and improve its bottom-line. In response, the organization/company should be ready and willing to follow through with the results/recommendations of our findings. If not, working in such an environment where our hard work doesn't come to fruition would be futile.

For some organizations/companies, employing a **Data Scientist** to guide data-driven business decisions based could be a leap of faith. So, before we accept the position of a **Data scientist**,

make sure the organization/company we are going to be working for has the right attitude and is prepared to make some changes if needed.

2- Becoming a Data Analyst

To become a **Data Analyst**, we should have a degree in either of these fields.

- Computer Science
- Economics
- Statistics
- Mathematics

Additionally, we should have the following qualities:

- Ability to analyze huge datasets.
- Experience in data reporting packages and models
- Ability to write all-inclusive reports.
- An inclination for problem-solving and an analytical bend of mind
- Attention to detail.

- Strong written and verbal communication skills

As a **Data Analyst**, our job would include the following (though it won't be limited to these):

- Gathering and interpreting data
- Spotting trends and patterns in data sets
- Defining new procedures for data collection and analysis
- Collaborating with business/management teams to ascertain business needs.
- Evaluating the results
- Reporting these results back to the appropriate stakeholders or other members of the business

2.1- Things to consider before accepting the job offer for the post of a data analyst

Similar to the case of a **Data Scientist**, our potential employer should have a conducive work environment and be willing to accept and act upon our findings. At the same time, it shouldn't confuse the role of a **Data Analyst** with that of a **Data Scientist**. If it does, taking up the position would mean working on aspects that we aren't trained in, which would soon start creating problems. Even if it doesn't, it will overburden us for sure.

3- Becoming a Financial Analyst

We will need to have a bachelor's degree — preferably with a major in finance, economics, or statistics to become a financial analyst. MBA graduates with specialization in finance too can enter the field as senior financial analysts.

Apart from educational qualifications, we should be proficient in problem-solving, have strong quantitative skills, and be adept in the use of logic along with having good communication skills. Our duties will include crunching data and reporting our findings to our superiors in a concise, clear, and persuasive manner.

4- Becoming a Research Analyst

To work as a research analyst, we are likely to need a master's degree in finance or have **ICMA, ACCA, CA, CFA** certification in addition to some others licenses or certifications that the job may need depending on which filed we are going to be employed in. We should also have the following skills and personality traits:

- Attention to detail.
- Be extremely organized and reliable.
- Good with numbers
- An inquisitive, logical bend of mind

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- Ability to refine huge amounts of information into particular takeaways.

Perhaps we can now see why being a **Data Scientist** is the top pick among all these positions.

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