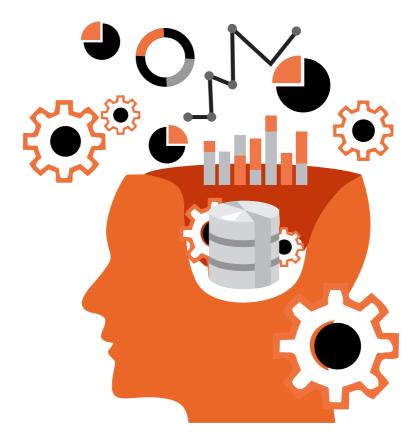


Learning, Research & Work Readiness Powered by Data Science



## **DATA SCIENCE** CAREER GUIDANCE PACKET





Improve your skills in line with the local and global growing trends and evolving market demands. Professional Development is critical to solid leadership, success, entrepreneurship and more.

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### A. INTRODUCTION

Data has permeated every aspect of our lives and organizations with more data been generated over the last decades. If the past is the predictor of the future, we can be assured of the trends toward increased data generation in the years to come. This makes it important to learn how we can store, manage and analyse the data that's being generated, thus the need for qualified data scientists is now at high demand.

Have you been pondering about how to launch your data science career but haven't made the first move or are unsure about how to start? You are in a situation that's not so different from those of many people. This **RISE NETWORKS DATA SCIENCE CAREER GUIDANCE PACKET** provides you with a step-by-step guide on how you can get started.

This **RISE NETWORKS DATA SCIENCE CAREER GUIDANCE PACKET** enumerates the steps to becoming a data scientist, the technical and life skills you'll need as a data scientist, the jobs outlook for the Global Data Science Industry, the most germane skills you need to succeed in the Industry and all other necessary information you need. If you're interested in pursuing a career in data science in Nigeria, this is your best GO-TO guide.



# **RiseNetworks** data science career guidance packet

#### B. THE RISE NETWORKS DATA SCIENCE TRAINING METHODOLOGY

Designed and Delivered by a World Class Faculty of Instructors, we combine a mix of Physical Classes and online Assessments via our Learning Management System after which we create customized profiles for our Students based on their learning abilities, professional interests, career choices and course content assimilation and capacity for implementation of and application to real life projects for their employer organizations. We also receive a number of hiring enquiries from organizations and reach out to them as well on their data centred problems to ensure that our Course Content and Instructional Materials are practical and applicable to existing, relevant and practical real life issues within their Institutions.

Based on our different classes [only with the exception of our One Day Foundation Program for Beginners], our students get real life use cases to work on Projects at the end of every week and a major capstone project at the end of their entire Program before they are able to receive their Certification from us.



### C. STEP BY STEP GUIDE ON HOW TO GET YOUR DATA SCIENCE CAREER STARTED

#### Step 1: Talk to People in the Field of Data Science

As valuable as it is to read articles and books written by Data science professionals or watch YouTube videos, it's a good thing for aspiring data scientists to have face-to-face conversations and training with people and organizations currently in the field.

As a Learning, Research and Work Readiness Organization working extensively in the Data Science Field, Rise Networks offers industry focused and sector specific career counselling and specialized foundational data science trainings themed around foundational, intermediate and advanced skills and strategies to Individuals and Organizations. This allows people who want to become data scientists and learn how to generate actionable insights and make strategic decisions from Data to receive direct professional instruction and training from experienced professionals.

It's also possible to employ a less formalized approach but this is not as effective as formal training and coaching on the Subject which allows you to do weekly projects and practice what you've learnt every step of the way. You can attend data science meet-ups like conferences and workshops in your communities. During the meet-ups, ensure to participate in Interactive sessions with experts.

Talking to people who are already in the field and are ready to share their experiences is crucial. It could help a Data Scientistto-be in confirming that this career path is the right one for them.



# Step 2: Learn About Different Specializations in the Field of Data Science

Contrary to what some people may think, there are numerous specializations for Data Scientists to choose, ranging from Business Analytics to biomedical informatics, Natural Language Processing to Image Processing, Artificial Intelligence to Machine Learning, Sentiment Analysis to Data Visualization and a lot more.

This makes it very necessary for you to think about how you could revamp your skills to increase the chances of working in certain Data Science roles. For instance, if you are particularly problem-solving oriented, you may consider specializing in operations-related Data Analytics which involves digging through information to determine how to help companies perform better. If you love looking through data to spot trends, you could specialize in Statistical Analysis or Data Visualization. By taking that approach, you will be equipped to specialise and become an Expert in a particular area of Data Science and it is actually also possible to focus on more than one area of Data Science but we advise that you take it one step after the other.





Looking into Data Science specializations is essential when you are in the early stages of your Data Science Career. The knowledge you gain could help you become aware of passions that would otherwise stay hidden in you and inform your decision on your career pathways in the field of Data Science.

# Step 3: Peruse the Data Science Job Market as a Purposeful Navigation Plan

It may seem premature to assess the Data Science job market now, especially if landing a data science job is a goal that's at least a few years away for you. However, it's valuable to get an idea of the companies that typically hire data scientists and the skills the prospective candidates should have before looking for work. This may require you learning essential programming languages for Data Science like Python, R and SQL.

Furthermore, it's useful to find out whether certain cities or states have considerable numbers of data scientist job postings. Then, as you continue planning your career, you can measure the likelihood of having to move from one city to another to get the jobs you want.

The not-recommended alternative to doing this research early is waiting until it's time to get a job. Then, you will find out that although you have worked hard to reach your goal, you may still lack necessary skills or are not prepared to relocate even though there are not many data science jobs available near you.

#### Step 4: Start an Independent Data Science Project

There's no reason for you to hold off on getting engaged in data science programs until you receive a formal training. Online



platforms like Kaggle and Zindi exist that let Data Science learners like you start projects when you are still a beginner. You can start by browsing the datasets that are freely available, then use those as jumping-off points that inspire the questions you want to answer.

If as a Data Science Enthusiast and you aren't feeling up to designing independent projects, that's no problem. There are premade projects and tutorials online that pose problems for people to solve. Those possibilities let individuals like you begin getting hands-on experience without investing in expensive tools or training.

Step 5: Consider Taking a Data Science Training [especially at Rise Networks

Many people who want to work as Data Scientists are already in other careers when they make that decision. So starting a Data Science career may require you learning how to balance the duties of one line of work while preparing for another.

In that case, enrolling in a data science training could be an ideal solution. Some are as short as a week, and others are a few months long. You can also attend our One Day Foundational Course just to get an Idea of the basic concepts of Data Science and introduce yourself to the background knowledge and frameworks of the Subject. There are also opportunities to enrol in trainings that are entirely specialized based on your preference. At Rise Networks, we have different data science training programs that will fit your needs.





#### **MOST RELEVANT AVAILABLE JOBS & PORT** D. **FOLIOS IN DATA SCIENCE**

Before we explore the hard and life skills you will need to succeed as a data scientist, we will first consider the main career options you can choose in data science namely data scientist, data engineer and data analyst.

#### i. **Data Scientist**

In many circumstances, "data scientist" and "data analyst" are sometimes used interchangeably by many companies based on their needs, there are clear differences between these two positions.

A data scientist is someone who can take a set of data, develop a use case for that data, create a hypothesis on how to make use of it, perform experiments using the developed hypothesis, analyse the results and come up with a solution.



Academic-wise, data scientists usually have degrees in a field such as statistics, mathematics, or computer science, which give them the foundational knowledge and skills they need to write advanced programs which can solve data problems.

However, you can start your career in data science by pursuing alternative data science training programs like the ones we have at Rise Networks.

More generally, a data scientist is someone who knows how to extract meaning from and interpret data, which requires both tools and methods from statistics and machine learning, as well as being human. He/she spends a lot of time in the process of collecting, cleaning, and munging data, because data is never clean.

#### **Skills for Data Scientists**

There are a variety of skills a data scientist may use in their job. Data scientists can use tools such as Hadoop which is a distributed file system processing framework for Big Data and programming languages such as Python and R to analyse large datasets. As a Data scientist, you may also need to apply statistical and mathematical concepts to your work to help you yield more valuable insights from data.

As a Data scientist, your work may require the use of any one of the following technical skills: R, Python, Scala, Clojure, Hadoop, Spark, MapReduce, Storm SQL, RDBMS, ETL, Flume, Sqoop, Webscrapers, DE,js, Gephi, ggplot2, Shiny, Flare, PowerBI, NoSQL, Cassandra, MongoDB, Couchbase, etc.

Data scientists must also have a wide variety of life skills. The most important skills a data scientist must have are 1. Business Acumen and 2. Communication. Your day-to-day work will



involve many opportunities and challenges to solve complex problems, which will require analysis of certain business problems and out-of-the-box thinking that depend on effective communication to different stakeholders.

#### ii. Data Engineer

A Data Engineer is the one that transforms data into a useful format for analysis. Data engineers are also responsible for creating methods of sorting and effectively analysing data. A data engineer can be seen as a type of software engineer or database administrator who can help in creating data pipelines so data analysts can effectively analyse any information an organization has gathered. The work of a data engineer involves maintaining of databases, creating queries to aid in data analysis, helping in scaling-up of technical infrastructure, and installing systems to ensure the integrity of a dataset is preserved in case of any disaster.

Generally, the work of Data engineers focus more on creating the pipeline so that data can flow from the user to the business' infrastructure. Data engineers do the work that ensures data analysts and data scientists can efficiently work with data within an organization.

Data engineers will need a wide range of technical skills in their day-to-day work. Many organizations with open positions for roles in data engineering may require a few of the following skills:

a. Knowledge of Programming languages like SQL and Python



- b. Experience with cloud platforms, AWS in particular
- c. Knowledge of Java and Scala, Understanding of SQL and NoSQL databases
- d. Data modelling and warehousing skills, Understanding of distributed file systems like Hadoop.
- e. As a bonus, experience with data visualization tools such as PowerBI or Tableau will keep you ahead in the game.

We can think of a data engineer as the one who will approach problems from a software engineering perspective, as well as from a data analysis perspective. He/she may have to solve complex problems through coding to help data analysts and scientists more effectively do their works. His/her work involve engineering solutions, and understanding the full stack data science workflow. The data engineering role may also involve assisting data scientist or analyst in navigating new systems and updates they have made to improve an organization's data science workflow.

#### iii. Data Analyst

Data Analysts are often seen as an entry-level data scientist who are just starting their career in data. Data analysts' jobs may involve analysing data sets and writing recommendations based on their findings. Data analysts may likely only leverage existing tools in their work. That is, they will not have to create their own technical solutions to data analysis problems.

Data analysts can be mentored by data scientists and giving them the guidance they need to learn more about the data analysis process, from analysing data to summarizing their findings.



A data analyst's job is to take data and use it to help companies make better business decisions. This could mean figuring out how to price new materials for the market, how to reduce transportation costs, solve issues that cost the company money, or determine how many people should be working on Saturdays, and identifying problems in a dataset and referring those problems to a data engineer or scientist.

#### **Skills for Data Analysts**

Unlike data scientists, data analysts do not always require knowledge of specific technical skills in order to perform their job. Indeed, they will acquire many of those skills on-the-job however, Data analysts should have a solid understanding of programming, mathematics and statistics skills, and know the fundamentals of visualizing tools for data and applying machine learning concepts to a dataset will be a good one.

Data analysts may also need to work with technologies such as R and Hadoop while doing their jobs, although they will be given guidance by professional data scientists when navigating these tools for the first time.





#### ESSENTIAL SKILLS FOR DATA SCIENTISTS F

#### 1. Life Skills for Data Science

To be a great data scientist, embrace and master these five life skills.

#### I. Curiosity and Inquisitiveness

Querying of data, model performance, business questions and more is an essential skill for a Data Scientist. The best way to master this is through the habit of asking questions. When faced with unusually good model performance, you must make it a habit to question if this in fact too good to be true. When working with a new data set, first ask questions about and in the data and find out the answer through analysis before building a model. It is through this habit that you will become a data scientist who can build truly useful data products.



#### **II.** Perseverance

The job of a data scientist is certainly not an easy one. In addition to the challenges you will face in your daily job, such as managing trade-offs between code quality and business deadlines or explaining machine learning to a non-technical colleague, you will also be faced with a rapidly changing technological landscape. In order to succeed in the fast evolving data science world, you will need grit in good measure to maintain the necessary schedule of continual learning alongside your everyday workload and developing successful working relationships amongst many other challenges.

#### III. Acumen and Sound Judgement for Business

Unless you happen to work as a data scientist in academia then business acumen is an extremely important skill to develop. In business, everything comes down eventually to profit. As a data scientist in business, your primary role will be to deliver value from the data that the company is capturing. You will need business acumen to determine which projects you should be applying data science to and which you shouldn't. You will need to determine ways to measure the performance of your models from a financial point of view.

#### IV. Communication

This is the one of the essential life skills that is usually listed as a requirement for a data scientist and it is probably the most vital. It doesn't matter how good your technical skills are if you can't communicate with others well, then you will find it very difficult to deliver anything of true value.





If you want to get a model into production and in use is something like a customer-facing system, then you will need to communicate effectively with data engineers to ensure a solid data science workflow and that the expected inputs are delivered to the model. You will also need to communicate successfully with stakeholders both during the model development phase and also once the model is in use. You will find that you have to communicate with a broad range of people from software engineers to non-technical stakeholders to business directors.

#### V. Team Work

Some human beings prefer to work alone but most prefer some interaction with other people. Irrespective of their wishes in this respect, as a data scientist, you have to collaborate closely with others in the field so also with non-data scientists. Data scientists usually require experienced members of the profession to help them into their positions. There are many skills required in data science. A data scientist is unlikely to master more than a few of these skills. In order for you to get the best out of your data science journey, there is a need to work in a team in harmony. This will help you to learn and develop the necessary complementary skills from other team members.

#### 2. Core Hard/Technical Skills for Data Science

Knowing which technical skills are most important for data scientists can help you decide where to focus your time and effort. Here is an exhaustive list of the most essential technical skills you should learn.



#### 1. Coding

Data science involves transforming data into meaningful insights and knowledge. However, raw data is often dirty and disorganized, can be difficult to join with other datasets, and must be carefully manipulated for further processing. In simple terms: Data is Messy.

Programming languages are usually the best tools for Data Cleaning and the most preferred programming language in data science is **Python**. Python can be used for every step in the data science workflow.

There are very powerful data analysis and machine learning libraries developed for Python, including numpy (for data storage and calculations), pandas (for data manipulation), scikitlearn (for machine learning), and countless other libraries for data visualization, natural language processing, data scraping, and deep learning.

Another popular programming language (commonly used among statisticians) is R, which offers a lot of Python's basic data science functionality. Once the primary language for data science, it's still the best choice in some specific technical areas such as time series forecasting. Although GUI-based [Graphical User Interface] data science tools do exist and are easier to pick up, manipulating data with code allows for unparalleled control.

#### II. Databases

Another useful data science skill to pick up is expertise in database management and design. The perfect place to start is SQL, the most popular and powerful language used to query,



insert, update and manage data in relational database systems (i.e., systems that represent data in tables). Much of a data scientist's job involves interacting with databases in order to extract and manipulate, so SQL skills could end up being something you use each day. These databases are used in almost every enterprise, as they're a proven, long-standing solution for managing data efficiently.

#### **III. Machine Learning**

Machine learning is the idea that you can program a machine to learn how to perform a task through using some sort of algorithmic or optimization-led guidance. There are many different models and methods that fall under this category, making this a subject that can really increase your breadth of knowledge. Even though some models are taught in more detail than others, it is still very useful to learn about different models at a high level; sometimes just knowing that a model exists will be useful for you in the future.

#### IV. Data Visualization

Data visualization provides a powerful way to gain insight into data and communicate data-driven results. With large data sets, using graphs and charts is sometimes the most efficient way to prepare for or display the results of modelling (especially if the visualizations are interactive).

Some popular data visualization tools used by data scientists are Tableau, Power BI, and D3.js. In addition, Python and R have excellent open-source data visualization libraries (e.g., matplotlib, bokeh, plotly, ggplot) that are capable of creating advanced graphs.



#### V. Big Data Frameworks

The need to harness "big data" does not apply only to huge research facilities and multinational organizations, mediumsized businesses can benefit too. For instance, even a small product company can try to maximize the effectiveness of its digital marketing initiatives and efforts by analysing click through rates of different website layouts or email promotions, or checking out product reviews and other feedback on their website or on social media but the size and variety of this data often necessitates the use of big data technologies to extract meaningful insights so learning them will be essential.



### F. DATA SCIENCE JOBS OUTLOOK

In 2008, some scientists working at LinkedIn and Facebook coined the term "data science." In 2018, the global market size of big data and business analytics was estimated at \$171.39 billion and approximately \$5 billion in Africa.



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## Are these the world's best jobs?

Ranking determined by work-life balance rating

#### Rank Job Salary 1 Data Scientist \$114,808 2 SEO Manager \$45,720 3 **Talent Acquisition Specialist** \$63.504 \$40.000 4 Social Media Manager 5 Substitute Teacher \$24,380 6 **Recruiting Coordinator** \$44,700 7 UX Designer \$91,440 8 **Digital Marketing Manager** \$70.052 9 Marketing Assistant \$32,512 10 Web Developer \$66,040 \$69.088 11 **Risk Analyst** 12 **Civil Engineer** \$65,532 13 Client Manager \$71,120 14 Instructional Designer \$66,040 15 Marketing Analyst \$60,000 16 Software QA Engineer \$91.440 17 Web Designer \$53,848 18 **Research Technician** \$36,525 19 Program Analyst \$71,120 20 Data Analyst \$58.928 \$60,960 21 Content Manager 22 Solutions Engineer \$92.456 23 Lab Assistant \$27,550 24 Software Developer \$80,000 25 Front End Developer \$75.000

Source: Glassdoor.com

#### **INTERNSHIPS**

#### Look for Data Science Internships as a Start

As an individual, if you want to get set with your data science careers and you want to have real-world experience through independent data science projects after going through formal training, it is an excellent time for you to try getting data science internships.



Rise Networks assists its Students with securing Internship positions within Organizations.

Many people view internships as routes to their future jobs and indeed, they can be if you impress your employers enough. However, anyone who's working toward a data science career must realize that most internships are valuable even when participants don't directly get job offers from them.

Depending on the length of the internship and the needs a company has, during your internship period, you might get to build data visualizations and create reports, among other tasks.

Doing these things might feel overwhelming at times, but the experience gets will make you ready for your future and helps you consolidate on your Data Science Practice and preparation for employment.





#### G. HOW TO PREPARE FOR A DATA SCIENCE JOB INTERVIEW

You have spent considerable amount of time learning about data science and have worked on exciting projects. Additionally, you have been working on learning new concepts and technologies. You have created a CV and sent to some companies. And one of those companies finally contacts you to open a conversation about the possibility of hiring you. As a matter of fact, the interview is the most important aspect of your entire hiring process.

If you have a Data Science interview scheduled and are looking for tips on how to prepare so you can succeed in it, below are some great tips to help you prepare for your interview.

# I. Read the Job Description for the Particular Position You Are Interviewing for

Data Scientist roles are still pretty new and the responsibilities vary widely across industries and across companies. Look at the skills required and the responsibilities for the particular position you are applying for. Make sure that the majority of these are skills that you have, or are willing to learn. For example, if you know Python, you could easily learn R if that's the language Data Scientists at Company X use. Do you care about webscraping and inspecting web pages to write web-crawlers? Does analysing text using different NLP modules excite you? Do you mostly want to write queries to pull data from SQL and NoSQL databases and analyse/build models based on this data? Set yourself up for success by leveraging your strengths and interests.



# II. Review your Resume before each Stage of the Interviewing Process

Keep your Resume short, simple and straight to the Point. Most interviews will start with questions about your background and how that qualifies you for the position. Having these things at the tip of your fingers will allow you allow you to ease into the interview calmly as you won't be fumbling for answers. Use this time to calm your nerves before the technical questions begin.

Additionally, review your projects and be prepared to talk about the Data Science process you used to design your project. Think about why you chose the tools that you used, the challenges that you encountered along the way, and the things that you learned along the way.

Ensure you have a Kaggle Profile where you compete often and a GitHub Profile Page where you upload your Projects. Quote the links to your profiles on both platforms on your Resume.

#### III. Do Mock Interviews

Interviewing can be nerve-racking, more so when you have to whiteboard technical questions. If possible, ask for mock interviews from people who have been through the process before so you know what to expect. If you cannot find someone to do this for you, solve questions on a white board or notebook so you get the feel of writing algorithms some place other than your code editor.

Practice asking questions to understand the scope and constraints of the problem you are solving. Once you are hired,





you will not be a stand-alone data scientist. It is reasonable to bounce around ideas and see if you are on the right track. It is not always about getting the correct answer, which often does not exist, but about how you think through problems, and how you work with other people as well.

#### IV. Practice the Skills that you Will Be Tested On

Your preparation should be informed by the job description and the conversation with recruiters. Study the topics that you know will be on the interview. Look up questions for each area in books and online. Review your statistics, machine learning algorithms, and programming skills. Some positions will want you to have really good programming skills and will not shy away from asking questions usually asked to software engineers.

You may even be asked to practice in some cases with some organizations, be ready for that possibility too.

Other positions will need you to have really excellent statistical skills, an understanding of different population distributions, experimental design, A/B testing and hypotheses testing. Most positions will test for your ability to communicate why any of these matters.

#### V. Learn about the Organization

There are a wide range of things that you should research about an Organization you're interested in interviewing at – don't neglect the industry, the role and anything else you think might be relevant but of utmost importance are Organization's History, Corporate Culture, Unique Selling Point, Competitors



and most critical stakeholders, standard operating procedure and their Management Style. At the centre of all these is the role that Data plays in the Operationalization of the Organization's Mission and Vision.



#### H. END

Building a Career in Data science will provide you access to great job opportunities, expand your mind about the possibilities in the field and equip you with the knowledge to solve actual problems in a result-oriented way. On a consistent basis, you will have the opportunities to be working through complicated but exciting problems using all kinds of data. Data Science both as a Profession and as a field of expertise is also pretty new and evolving at a really fast pace so if you're thinking about kick-starting your career in emerging/deep technologies, data science is certainly the space you should be deepening your knowledge and paying attention to.



## I. ABOUT RISE NETWORKS

The Rise Labs by Rise Networks is a Data Science Powered Learning, Research and Work Readiness Lab and our trainings, Projects & Products are centred around Emerging Technologies and Disruptive Innovation in the realm of Artificial Intelligence, Machine Learning, Internet of Things (IoT) and Advanced Analytics.

## J. FREQUENTLY ASKED QUESTIONS AND ANSWERS ABOUT LEARNING AND STARTING CAREER IN DATA SCIENCE

#### 1. What most useful skills are needed to be a data scientist?

- Programming Skills
- Statistics
- Machine Learning
- Multivariable Calculus & amp; Linear Algebra
- Data Wrangling
- Data Visualization & amp; Communication
- Software Engineering
- Data Intuition

#### 2. What should I learn for data science?

- Problem solving intuition.
- Mathematical (Linear Algebra concepts) and Statistical Analysis.
- Programming Skills (knowledge in R, Python and SQL)
- Machine Learning
- Knowledge of Big Data tools (Hadoop, Spark, Hive, Pig etc.)
- Story-telling and Visualization
- Strong Communication skills.

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#### 3. How can I become a good data scientist?

- Immerse Yourself into Business Teams and Projects
- Pay Attention to Decision-Making
- Find Valuable Data You Can Collect
- Learn Client Behaviour
- Imbibe Data-Driven Culture
- Keep developing your skills

#### 4. What tools are best for Data Science?

- Python
- R
- SQL
- Apache Spark
- Excel
- Power BI
- Jupyter
- Scikit-learn
- Tensorflow

#### 5. Why do Data Scientists use Python?

Machine learning can make connections between disparate datasets but requires serious computational sophistry and power. Python fills this need by being a general-purpose programming language. It allows you to create CSV output for easy data reading in a spreadsheet.

#### 6. How can I learn Python for Data Science?

**Step 1:** Learn Python Fundamentals. Everyone starts some where.

**Step 2:** Practice Mini Python Projects. We truly believe in hands-on learning.

**Step 3:** Learn Python Data Science Libraries.



**Step 4:** Build a Data Science Portfolio as you Learn Python. **Step 5:** Apply Advanced Data Science Techniques.

#### 7. Is Python enough for data science?

The two most conducive languages are Python and R. Python is a general purpose productive language, that has somehow resulted in an excellent option to do data science. It can be used for much more than that. Python has pretty good packages and NLP kits for data learning.

#### 8. Does Data Science require math?

You don't need advanced math to get started with data science. You don't need calculus or linear algebra. You can learn the essentials of machine learning with rather limited math background.

#### 9. How much time do data scientists spend cleaning data?

Results of a recent study of over 23,000 data professionals found that data scientists spend about 40% of gathering and cleaning data, 20% of their time building and selecting models and 11% of their time finding insights and communicating them to stakeholders.

#### 10. Can I learn Data Science on my own?

Yes, you can become a self-taught data scientist. It is harder than formal Education in Data Science, but so far as I know data science programs are brand new. The field is interdisciplinary, so you have to learn at least one field on your own.

# **11**. Is it too late to learn data science and at what age can I start learning?

It is never too late to become a data scientist. You can start at any age at any time.



There will be a severe shortage of Data Scientists and other Data Science based jobs throughout the world in the coming years. Technology is evolving and changing really fast.

#### 12. How long will it take to learn data science?

We believe to learn data science you need at least 6 months of dedicated

time somewhere around 6-7 hours per week. However, it also depends on your learning ability and prior knowledge of mathematical/programming skills that can deaccelerate or accelerate your learning.

#### 13. How do I start studying data science?

Step 0: Figure out what you need to learn.

**Step 1**: Get comfortable with Python.

**Step 2:** Learn data analysis, manipulation, and visualization with pandas.

**Step 3:** Learn machine learning with scikit-learn.

Step 4: Understand machine learning in more depth.

Step 5: Keep learning and practising.

#### 14. Is SQL easier than Python?

As a language, SQL is definitely simpler than Python. The grammar is easier and the amount of different concepts is smaller but that doesn't really matter much. As a tool, SQL is more difficult than Python coding.

#### 15. Are Data Scientists considered to be smart people?

The most important thing is not necessarily being smart, being highly competent in a few different areas of Data Science should be your Priority. Good data scientists combine these skills into one role and that is why they are so valuable. Each of the skills can be mastered on their own in different ways.



#### 16. Are Data Scientists in high demand?

According to a survey by the MIT Sloan Management Review, 43 percent of companies report a lack of appropriate analytic skills as a key challenge.

#### 17. Is it too late to learn coding?

For all those who believe that there are any kinds of limitations on one's ability to learn programming (or anything, for that matter) relative to age, there are none - it is never too late. It is never too late to learn software programming.

#### 18. Is Data Science a secure Career?

Data Science is here to stay for a long, long time. So, yes, it is a safe and secure career to pursue.

#### 19. What are the basics of Data Science?

A Wholesome Data Science Process goes through Discovery, Data Preparation, Model Planning, Model Building, Operationalization and Communication/Presentation Results.



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