

# Roadmap to Data Sciences

In this article, I will give you a complete road map on how to become a Data Scientist with skills like Machine Learning, Deep Learning and [Artificial Intelligence](#).

We probably are thinking that we need a master's degree or PhD from a great university to become a Data Scientist. Somehow, it's true that having a master's or PhD in this background from a very top university will open a door for us in the field of Data Sciences and Machine Learning.

But we really don't need any degree in order to become a Data Scientist. Let me explain how to do it.

## How to Become a Data Scientist

There are following 5 steps to become a Data Scientist:

### 1. Learn Python

Python is a Great Language for Data Sciences. Begin with Python is the best choice, because of the support of external libraries for [Data Science](#) and Machine Learning are best in python.

## 2. Learn Mathematics (Linear Algebra and Statistics)

Data Science is all about applying math to data. If we don't know about math, we will face difficulties with data science. We can start learning Mathematics for Data Science using [Numerical Python](#) and [Statistics](#).

## 3. Learn Python Libraries

The Python Libraries are absolutely fantastic. It's basically something that we can add on python, that gives python a lot more functionality.

There are some great Libraries for [Data Science](#), we are required to learn:

1. [Numpy](#) (for linear algebra)
2. [Pandas](#) (for statistics and data manipulation)
3. [Matplotlib](#) (for data visualization)
4. [Scikit-Learn](#) (for Machine Learning)
5. [TensorFlow](#)(for Machine Learning)

## 4. Start working on projects

After learning all these libraries, we can start working on our own projects. We can research on the Internet to download the data sets for our practice.

We can download the data sets from <https://catalog.data.gov/dataset>, and if we want to work on projects related to Finance then <https://in.finance.yahoo.com/> would be best.

## 5. Register with Github

The last step is to register with [Github](#), where we can share our projects with everyone in the world.

The idea is to create a good portfolio of our projects at Github, so that people may know about what we can do.

Try to upload at least one project every month on Github, so that when employers will ask for our contribution to any project, we can impress them with our skills.