

## Data Analytics ReadMe @ M\_Akhil\_Reddy

**1.Statistics:** This is the most basic of data analytics. It's dry but the maths are must needed. But I think it's the most important hurdle to clear.

Any Course on Edx will do and Leave It, If U feel comfortable by course Probability and Statistics taught in 4 Sem.

### **Suggestions:**

<https://www.edx.org/course/introduction-probability-science-mitx-6-041x-1>

<https://www.edx.org/course/statistical-thinking-data-science-columbiadx-ds101x-0>

**2.Coding with either R or Python or both:** Coursera and edX have tons of courses like this. Not a problem to find. This is where you'll find Statistics knowledge put into good use. You'll appreciate the rationales and implications behind functions that do Linear Regression, Logistic Regressions, Decision Trees, etc if you have understood some Statistics.

**3.Learn how to put knowledge into models that can output real values:** Optimization methods, Statistical modelling, Time series forecasting, econometrics, customer segmentations, marketing analytics, operations analytics, six sigma, etc. Well, you pick the topics, you can search for the topics in Coursera and edX search bar and the relevant courses will pop up.

**4.Machine Learning:** after you learn coding with R and / or Python, you can totally learn Machine learning basics. After knowing how the models are done, it's time to learn how to automate them.

**Note:** You may skip (3) and Go to (4) , But (1) and (2) are must.

**5.Do your own projects:** either you find projects through courses, or you can go to Kaggle, or you can cook up your owns through blogs or github communities, etc. The sky's the limit.

## **Best Moocs on Analytics:**

### **1. Machine Learning (Stanford), Andrew Ng course on Coursera:**

<https://www.coursera.org/learn/machine-learning>

Contains the maths behind many of the Machine Learning algorithms. The Game Changer machine learning course. I will put this course as numero uno as this course motivated me into getting in this field and Andrew Ng is a great instructor.

### **2. Stat110(Harvard) Probability and Statistics on YouTube:**

<http://projects.iq.harvard.edu/stat110/youtube>

This is one of the most famous stat courses at Harvard and a core course for the statistics concentrators at Harvard. And rightly so. This course lets you discover the probability related terms you will hear many times in your data science journey. Additionally learning from prof. Joe Blitzstein is an absolutely wonderful experience. You can find the lecture videos on Youtube.

### **3. CS109 Data Science(Harvard) :**

<http://cs109.github.io/2015/>

or

<http://cm.dce.harvard.edu/2014/01/14328/publicationListing.shtml>

Again by Professor Blitzstein. Again an awesome course. Watch it after Stat110 as you will be able to understand everything much better with a thorough grinding in Stat110 concepts. You will learn about Python Libraries for data science, along with a thorough intuitive grinding for various Machine learning Algorithms.

### **4. The Analytics Edge(MIT) :**

<https://www.edx.org/course/analytics-edge-mitx-15-071x-2>

Great if you want to learn R and practice it on a variety of Datasets. The most easy course of the lot here.

**This is Must Course before solving Data Science Challenges Online.**

## **Courses from Edx:**

**Data Analysis for Life Sciences XSeries Program :** ( You can use this for getting command on Statistics Too )

<https://www.edx.org/xseries/data-analysis-life-sciences>

**Columbia University XSeries Program :** ( Best University (@ World 1) in Terms of Data Analytics, So Gives U an Edge in applying for Universities )

<https://www.edx.org/xseries/data-science-analytics-context>

**Microsoft Professional Program Certificate in Data Science :**

<https://www.edx.org/microsoft-professional-program-certificate-data-science>

## **Courses on Coursera :**

Refer link : <https://www.coursera.org/browse/data-science?languages=en>

### **Specializations :-**

<https://www.coursera.org/specializations/data-science-python>

<https://www.coursera.org/specializations/jhu-data-science>

## **Competitions:** ( Must for getting Command on Problem solving - For getting Job :-D )

<https://datahack.analyticsvidhya.com/contest/all/>

<https://www.kaggle.com/competitions>

<https://www.hackerrank.com/contests> ( Check for Data Science Challenges from Some Companies  
Eg: Morgan Stanley, ZS Asso. , Xerox Found. etc..)