**Blogs that are freely Available**

<https://towardsdatascience.com/>

<https://medium.com/topic/machine-learning>

Feature Engineering Playlist

<https://github.com/aikho/awesome-feature-engineering>

Feature Selection Playlist

<https://github.com/anujdutt9/Feature-Selection-for-Machine-Learning>

# Month 1 - Data Analysis

## Week 1 - Learn Python

* EdX <https://www.edx.org/course/introduction-python-data-science-2>
* Siraj Raval <https://www.youtube.com/watch?v=T5pRlIbr6gg&list=PL2-dafEMk2A6QKz1mrk1uIGfHkC1zZ6UU>
* **Corey Schafer** <https://www.youtube.com/user/schafer5>
* **Sentdex** <https://www.youtube.com/user/sentdex>

**Numpy, pandas, matplotlib,scikitlearn**

## Week 2 - Statistics & Probability

* KhanAcademy <https://www.khanacademy.org/math/statistics-probability>
* Khan Academy - <https://www.youtube.com/redirect?v=Vn_mmOuQkSA&event=video_description&q=https%3A%2F%2Fwww.khanacademy.org%2Fmath%2Fstatistics-probability&redir_token=BYgEwXoyIliyJJh5tRtULcNtU8d8MTU4ODk0MzMwOUAxNTg4ODU2OTA5>

## Week 3 Data Pre-processing, Data Visualization, Exploratory Data Analysis

* EdX <https://www.edx.org/course/introduction-to-computing-for-data-analysis>

## Week 4 Kaggle Project #1

* Try your best at a competition of your choice from [Kaggle](https://www.kaggle.com/competitions).
* Use [Kaggle Learn](https://www.kaggle.com/learn/overview) as a helpful guide

# Month 2 - Machine Learning

#### Math of Machine Learning Cheat Sheets

* [Statistics](http://web.mit.edu/~csvoss/Public/usabo/stats_handout.pdf)
* [Probability](https://static1.squarespace.com/static/54bf3241e4b0f0d81bf7ff36/t/55e9494fe4b011aed10e48e5/1441352015658/probability_cheatsheet.pdf)
* [Calculus](http://tutorial.math.lamar.edu/pdf/Calculus_Cheat_Sheet_All.pdf)
* [Linear Algebra](https://www.souravsengupta.com/cds2016/lectures/Savov_Notes.pdf)

## Week 1-2 - Algorithms & Machine Learning

* Columbia <https://courses.edx.org/courses/course-v1:ColumbiaX+DS102X+2T2018/course/>
* **Andrew NG applied** <https://www.youtube.com/watch?v=PPLop4L2eGk&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN>
* **coursera**
* **Krish Naik** <https://www.youtube.com/watch?v=EqRsD3gqeCo&list=PLZoTAELRMXVOnN_g96ayzXX5i7RRO0QhL>
* **Sentdex** <https://www.youtube.com/user/sentdex>

**Statquest with Josh Starmer** <https://www.youtube.com/user/joshstarmer>

* **Google** https://developers.google.com/machine-learning/crash-course/ml-intro

**Natural Language Processing**

**Krish** <https://www.youtube.com/watch?v=6ZVf1jnEKGI&list=PLZoTAELRMXVMdJ5sqbCK2LiM0HhQVWNzm>

**Sentdex** <https://www.youtube.com/user/sentdex>

## Week 3 - Deep Learning

* Part 1 and 2 of DL Book <https://www.deeplearningbook.org/>
* Siraj Raval <https://www.youtube.com/watch?v=vOppzHpvTiQ&list=PL2-dafEMk2A7YdKv4XfKpfbTH5z6rEEj3>
* **Andrew Ng**<https://www.youtube.com/watch?v=CS4cs9xVecg&list=PLkDaE6sCZn6Ec-XTbcX1uRg2_u4xOEky0>
* **Krish Naik** <https://www.youtube.com/watch?v=DKSZHN7jftI&list=PLZoTAELRMXVPGU70ZGsckrMdr0FteeRUi>
* **Data Science Projects**

<https://www.youtube.com/watch?v=5Txi0nHIe0o&list=PLZoTAELRMXVNUcr7osiU7CCm8hcaqSzGw>

deeplearning.ai

tensorflow

udacity free

keras

## Week 4 - Kaggle Project #2

* Try your best at a competition of your choice from [Kaggle](https://www.kaggle.com/competitions). Make sure to add great documentation to your github repository! Github is the new resume.

# Month 3 - Real-World Tools

## Week 1 Databases (SQL + NoSQL)

* Udacity <https://www.udacity.com/course/intro-to-relational-databases--ud197>
* EdX <https://www.edx.org/course/introduction-to-nosql-data-solutions-2>
* <https://www.youtube.com/playlist?list=PL08903FB7ACA1C2FB>
* Mongo Db
* firebase

## Week 2 Hadoop & Map Reduce + Spark

* Udacity <https://www.udacity.com/course/intro-to-hadoop-and-mapreduce--ud617>
* Spark Workshop <https://stanford.edu/~rezab/sparkclass/slides/itas_workshop.pdf>

## Week 3 Data Storytelling

* Edx <https://www.edx.org/course/analytics-storytelling-impact-1>

## Week 4 Kaggle Project #3

* Try your best at a competition of your choice from [Kaggle](https://www.kaggle.com/competitions).

[https://www.kaggle.com/learn/overview](https://www.youtube.com/redirect?q=https%3A%2F%2Fwww.kaggle.com%2Flearn%2Foverview&redir_token=P-2q9GLqsTdjOQMllu34BccKA_58MTU5MDQ2OTY0NkAxNTkwMzgzMjQ2&event=video_description&v=Ip50cXvpWY4)

[https://www.fast.ai/](https://www.youtube.com/redirect?q=https%3A%2F%2Fwww.fast.ai%2F&redir_token=P-2q9GLqsTdjOQMllu34BccKA_58MTU5MDQ2OTY0NkAxNTkwMzgzMjQ2&event=video_description&v=Ip50cXvpWY4)

deeplearning.ai

**Month 4 – Cloud Computing**

**Read about**

* **Devops**
* **Azure**
* **Google Cloud platform**
* **Amazon Web service**
* **New technologies**