Day 01: Introduction to Big Data and Data Science

Pre-reads:

\* [http://bit.ly/2XJY7JD](https://www.business-standard.com/article/pti-stories/data-analytics-outsourcing-market-in-india-is-worth-27-billion-study-by-aim-praxis-business-school-119061900221_1.html)

\* [http://bit.ly/2Lm8OAu](https://www.forbes.com/sites/garybarker/2019/06/25/trending-technologies-how-big-data-is-impacting-estate-agencies/#717e780738a7l)

\* [http://bit.ly/2YaJX8V](https://hbr.org/2019/07/building-the-ai-powered-organization)

Day 02: Introduction to Probability and Statistics

Pre-reads:

\* [http://bit.ly/30BJ1Ib](https://www.mathsisfun.com/data/frequency-grouped-mean-median-mode.html)

\* [http://bit.ly/2XKnXSE](https://www.mathsisfun.com/data/probability.html)

\* [http://bit.ly/2Jzzvj7](https://www.mathsisfun.com/data/random-variables.html)

\* [http://bit.ly/2xLazOL](https://www.mathsisfun.com/data/random-variables-continuous.html)

\* [http://bit.ly/2XJqCMg](https://www.mathsisfun.com/data/standard-normal-distribution.html)

Day 03:

Pre-reads:

\* [http://bit.ly/2XS5yhO](https://studiousguy.com/real-life-examples-normal-distribution/)

\* [http://bit.ly/2JyooH8](https://betterexplained.com/articles/an-intuitive-and-short-explanation-of-bayes-theorem/%22)

\* <https://www.analyticsvidhya.com/blog/2017/09/6-probability-distributions-data-science/>

\* <https://towardsdatascience.com/probability-concepts-explained-probability-distributions-introduction-part-3-4a5db81858dc>

Day 04:

\* [http://bit.ly/2xOS77V](https://www.mathsisfun.com/data/confidence-interval.html)

\* [http://bit.ly/2xSDBfv](http://www.stat.yale.edu/Courses/1997-98/101/confint.htm)

Day 05:

\* [http://bit.ly/2O1wkok](https://stattrek.com/hypothesis-test/hypothesis-testing.aspx)

\* <https://www.statisticssolutions.com/hypothesis-testing/>

Day 06:

Pre-read

<https://cran.r-project.org/doc/manuals/R-intro.pdf>

Day 07:

Pre-read

<https://r4ds.had.co.nz/exploratory-data-analysis.html>

<https://blog.datascienceheroes.com/exploratory-data-analysis-in-r-intro/>

<https://bookdown.org/rdpeng/exdata/preface.html>

<http://ncss-tech.github.io/stats_for_soil_survey/chapters/4_exploratory_analysis/4_exploratory_analysis.html>’

Day 08:

Pre-read

<http://r-statistics.co/Linear-Regression.html>

<https://www.machinelearningplus.com/machine-learning/complete-introduction-linear-regression-r/>

<https://towardsdatascience.com/simply-explained-logistic-regression-with-example-in-r-b919acb1d6b3>

<https://azure.microsoft.com/en-us/services/cognitive-services/text-analytics/>

Day 09:  
 Pre-read

<https://www.w3schools.com/python/python_intro.asp>

<https://www.guru99.com/r-vs-python.html>

Day 10:

Pre-read

<https://cloudxlab.com/blog/numpy-pandas-introduction/>

<https://www.hackerearth.com/practice/machine-learning/data-manipulation-visualisation-r-python/tutorial-data-manipulation-numpy-pandas-python/tutorial/>

Day 11:

Pre-read

\* [http://bit.ly/2Zka8XX](https://www.visiondummy.com/2014/03/eigenvalues-eigenvectors/)

\* [http://bit.ly/312nsjZ](https://medium.com/fintechexplained/what-are-eigenvalues-and-eigenvectors-a-must-know-concept-for-machine-learning-80d0fd330e47)

\* <https://www.geeksforgeeks.org/machine-learning/>

\* <https://www.geeksforgeeks.org/machine-learning/>

Day 12:

Pre-read

<https://medium.com/machine-learning-for-humans/unsupervised-learning-f45587588294>

Day 13:

References:

<https://www.kdnuggets.com/2016/04/association-rules-apriori-algorithm-tutorial.html>

<https://medium.com/fintechexplained/machine-learning-algorithm-comparison-f14ce372b855>

Day 14:

References:

<https://medium.com/machine-learning-for-humans/supervised-learning-740383a2feab>

<https://www.dataschool.io/comparing-supervised-learning-algorithms/>

Day 15:

References:

<http://www.nltk.org/book/>

Day 16:

References:

<http://deeplearning.net/reading-list/tutorials/>

<http://web.iitd.ac.in/~sumeet/Jain.pdf>

<http://www.dkriesel.com/en/science/neural_networks>

<https://playground.tensorflow.org/#activation=tanh&batchSize=10&dataset=circle&regDataset=reg-plane&learningRate=0.03&regularizationRate=0&noise=0&networkShape=4,2&seed=0.22083&showTestData=false&discretize=false&percTrainData=50&x=true&y=true&xTimesY=false&xSquared=false&ySquared=false&cosX=false&sinX=false&cosY=false&sinY=false&collectStats=false&problem=classification&initZero=false&hideText=false>

Day 17:

References

<http://people.csail.mit.edu/torralba/research/drawCNN/drawNet.html?path=imagenetCNN>