

*The Elements of Statistical Learning: Data Mining, Inference, and Prediction*

Trevor Hastie, Robert Tibshirani, Jerome Friedman

(A rather heavily mathematical treatment, but well written)

<http://www.web.stanford.edu/~hastie/ElemStatLearn/>

*The Mathematics of Machine Learning*

Garrett Thomas

(47 page guide to some mathematics background)

<https://gwthomas.github.io/docs/math4ml.pdf>

*A Comprehensive Guide to Machine Learning*

Soroush Nasiriany, Garrett Thomas, William Wang, Alex Yang

(185 page guide)

<https://www.eecs189.org/static/resources/comprehensive-guide.pdf>

Probability Cheatsheet

(10 page cheat sheet with distributions, etc)

<https://st3.ning.com/topology/rest/1.0/file/get/1021027902>

Mathematics/Probability/Statistics

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MIT Open Courseware Introduction to Probability

<https://ocw.mit.edu/resources/res-6-012-introduction-to-probability-spring-2018/>

Bayes Theorem

<https://www.mathsisfun.com/data/bayes-theorem.html>

<https://www.statisticshowto.com/bayes-theorem-problems/>

<https://towardsdatascience.com/bayes-theorem-101-example-solution-ff54147d6c7f>

<https://betterexplained.com/articles/an-intuitive-and-short-explanation-of-bayes-theorem/>

<https://towardsdatascience.com/bayes-rule-with-a-simple-and-practical-example-2bce3d0f4ad0>

Twitter accounts related to data science that I follow:

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@BecomingDataSci (Data Science Renee)

@rasbt (Sebastian Raschka)

@KirkDBorne (Kirk Borne, Principal DS at Booz Allen Hamilton)

@chrisalbon (Chris Albon, has created MachineLearningFlashcards.com)

@dataandme (Mara Averick, more of an R advocate)

@JanelleCShane (Janelle Shane, because she talks about funny/weird applications/outcomes of Artificial Intelligence and has the website aiweirdness.com)

Websites advertising/hosting Machine Learning competitions:

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

Zindi <https://zindi.africa/>

DrivanData <https://www.drivendata.org/>

Open Data Science <https://ods.ai/>

Extra Resources (beyond Unit 2 material)

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[Backpropagation in Neural Networks: Process, Example & Code](#) (Note: We won't be talking about Neural Networks in this machine learning course.)

[Apache Spark™ - Unified Analytics Engine for Big Data](#) (We won't be talking about Spark in this machine learning course, but Spark is a tool for helping to analyze large data sets in a distributed computing environment.)