

## Learning Resources

### Bias-Variance tradeoff

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Good introduction to Bias-Variance tradeoff

<http://www.cs.cornell.edu/courses/cs678/2006sp/cs678.bias.variance.bag.boost.4up.pdf>

Derivation of Bias-Variance tradeoff

<http://www.inf.ed.ac.uk/teaching/courses/mlsc/Notes/Lecture4/BiasVariance.pdf>

Paper on unified Bias-Variance decomposition

<http://homes.cs.washington.edu/~pedrod/papers/mlc00a.pdf>

Good illustration of Bias-Variance tradeoff

<http://scott.fortmann-roe.com/docs/BiasVariance.html>

Wikipedia article on Bias-Variance tradeoff

[https://en.wikipedia.org/wiki/Bias%E2%80%93variance\\_tradeoff](https://en.wikipedia.org/wiki/Bias%E2%80%93variance_tradeoff)

Advanced article on Bias-Variance applied to neural net

<http://www.dam.brown.edu/people/geman/Homepage/Essays%20and%20ideas%20about%20neurobiology/bias-variance.pdf>

Chapter 7 of The Elements of Statistical Learning by Hastie et al

<http://statweb.stanford.edu/~tibs/ElemStatLearn/>

### Ensemble Methods

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Chapters 8 (Bagging), 10 (Boosting), 15 (Random forest) of The Elements of Statistical Learning by Hastie et al

<http://statweb.stanford.edu/~tibs/ElemStatLearn/>

Chapter 8 of An Introduction to Statistical Learning by James, Witten, Hastie, and Tibshirani <http://www-bcf.usc.edu/~gareth/ISL/>

A short introduction to Boosting by Freund et al

<https://cseweb.ucsd.edu/~yfreund/papers/IntroToBoosting.pdf>

Paper on Adaboost

<http://web.eecs.utk.edu/~leparker/Courses/CS425-528-fall10/Handouts/AdaBoost.M1.pdf>

A brief introduction to Boosting by Schapire

<https://www.cs.princeton.edu/~schapire/papers/Schapire99c.pdf>

Paper on XGBoost by Chen et al

<http://www.kdd.org/kdd2016/papers/files/rfp0697-chenAemb.pdf>

Gentle Introduction to Gradient Boosting by Li

[http://www.ccs.neu.edu/home/vip/teach/MLcourse/4\\_boosting/slides/gradient\\_boosting.pdf](http://www.ccs.neu.edu/home/vip/teach/MLcourse/4_boosting/slides/gradient_boosting.pdf)

Wikipedia article on Gradient Boosting

[https://en.wikipedia.org/wiki/Gradient\\_boosting](https://en.wikipedia.org/wiki/Gradient_boosting)

MIT video on boosting <https://youtu.be/UHBmv7qCey4>