Making a Case

HN

Washington State University

January 15, 2025

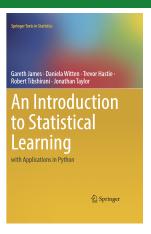


General

- Anything worth making needs patience and practice
- If you want mastery, you need to immerse yourself in it till it becomes your second nature, just like walking

- Top(?) two take aways from graduate school
 - Try not to have a bias and be playful **Q**
 - 2 When you are wrong, you are wrong △

Source of This Notes



Notes from

An Introduction to Statistical

Learning with Applications in Python

- It's an easy read and as the name suggests, it's just Introduction. Good for intuition building
- Its PDF is available for free from the Authors' website.
- Sign-up & receive coupons (30%-50% off)

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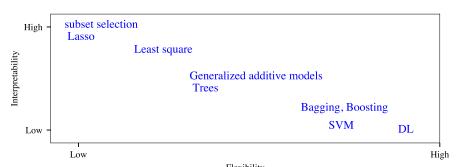
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More Resources

- Guesstimation: (Weinstein and Adam, 2008)
- First Course in Probability (Ross et al., 1976)
- Introduction to Linear Regression Analysis (Montgomery, Peck, and Vining, 2021)

Non-technical

- Excellent Sheep: The Miseducation of the American Elite and the Way to a Meaningful Life (Deresiewicz, 2014)
- The Culture Code: The Secrets of Highly Successful Groups (Coyle, 2018)

Tools

■ Software Carpentry has lots of tutorials including GitHub!

Some Definition I

Definition (Variance of a method)

Variance refers to the amount by which \hat{f} would change if we estimated it using a different training data set.

Bibliography I

- Coyle, D. (2018). *The Culture Code: The Secrets of Highly Successful Groups*. Bantam Books, an imprint of Random House, a division of Penguin Random House LLC New York.
- Deresiewicz, W. (2014). Excellent Sheep: The Miseducation of the American Elite and the Way to a Meaningful Life. Free Press.
- Montgomery, D. C., Peck, E. A., and Vining, G. G. (2021). *Introduction to Linear Regression Analysis*. John Wiley & Sons.
- Ross, S. M. et al. (1976). *A first course in probability*. Vol. 2. Macmillan New York.
- Weinstein, L. and Adam, J. A. (2008). *Guesstimation: Solving the world's problems on the back of a cocktail napkin*. Princeton University Press.