

Reading for Linear Regression

Read ISLR Chapter 3 up thru Section 3.3 for the basic ideas. Note the important questions in section 3.2.2. You may skip sections 3.3.1 and 3.3.2 for now. Note the potential problems in section 3.3.3. Read about and look the Figures 3.11 to 3.13.

The assignment script is based on the 3.6 Lab: Linear Regression scripts in sections 3.6.1, 3.6.2, 3.6.3 and 3.6.4. The assignment script includes some additional graphics and comment.

There are videos for the ISLR chapters. The links for chapter 3 are below.

Chapter 3: Linear Regression ([slides](#), [playlist](#))

- [Simple Linear Regression and Confidence Intervals](#) (13:01)
- [Hypothesis Testing](#) (8:24)
- [Multiple Linear Regression and Interpreting Regression Coefficients](#) (15:38)
- [Model Selection and Qualitative Predictors](#) (14:51)
- [Interactions and Nonlinearity](#) (14:16)
- [Lab: Linear Regression](#) (22:10)

You may also choose to read Chapter 16 on Linear Models in the R for Everyone text. This is not necessary. I would like you to see the matrix formulation in equations (16.5) to (16.11).