

CHAPTER OVERVIEW

4: Multi-factor Regression

A multi-factor regression model is a generalization of the simple one- factor regression model discussed in Chapter 3. It has n factors with the form:

$$y = a_0 + a_1x_1 + a_2x_2 + \dots a_nx_n,$$

where the x_i values are the inputs to the system, the a_i coefficients are the model parameters computed from the measured data, and y is the output value predicted by the model. Everything we learned in Chapter 3 for one- factor models also applies to the multi-factor models. To develop this type of multi-factor regression model, we must also learn how to select specific predictors to include in the model

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