

CHAPTER OVERVIEW

3: One-Factor Regression

The simplest linear regression model finds the relationship between one input variable, which is called the predictor variable, and the output, which is called the system's response. This type of model is known as a one-factor linear regression. To demonstrate the regression-modeling process, we will begin developing a one-factor model for the SPEC Integer 2000 (Int2000) benchmark results reported in the CPU DB data set. We will expand this model to include multiple input variables in this Chapter.

[3.1: Visualize the Data](#)

[3.2: The Linear Model Function](#)

[3.3: Evaluating the Quality of the Model](#)

[3.4: Residual Analysis](#)

This page titled [3: One-Factor Regression](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by [David Lilja](#) ([University of Minnesota Libraries Publishing](#)) via [source content](#) that was edited to the style and standards of the LibreTexts platform.