Introduction To Linear Regression Analysis

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Introduction to Linear Regression Analysis 4th ed., by Douglas C. Montgomery. Linear regression analysis is the most widely used of all statistical techniques: it is the study of linear, additive relationships between variables. Let Y denote the response variable and X denote the predictor variables. In linear regression analysis, the relationship between the response variable Y and the predictor variables X is modeled using a linear equation. The least squares method is used to estimate the coefficients of the linear equation, which is then used to make predictions. Linear regression analysis is widely used in various fields such as economics, engineering, and social sciences.

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