Exploring the Normal Distribution

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Abstract

The normal distribution, or bell curve, is a fundamental concept in statistics, describing how data is spread around a central value. It is commonly observed in various fields such as nature, business, and science. This project" ***Exploring the Normal Distribution***" provides an interactive approach to understanding this concept using GeoGebra software. Through adjustable values like mean and standard deviation, users can observe how changes affect the curve's shape. The project includes real-life examples, such as test scores, to help users compare actual data distributions with the theoretical normal distribution. By utilizing dynamic features like sliders, users engage with the concept, gaining a deeper understanding of its applications. The outcome of the project is an interactive GeoGebra model, a user guide, and a report summarizing the learning experience. This project aims to make learning about the normal distribution engaging and accessible for all users. Ultimately, it enhances comprehension by offering both theoretical insights and practical applications.

Keywords

Normal distribution, GeoGebra, bell curve, interactive learning, test scores, mean, standard deviation, real-life data, statistical visualization, probability distribution.