Probability & Statistics

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Assignment 2

Variance and standard deviation are both measures of the dispersion of a set of data points around the mean, but they have some differences. Variance is the average of the squared differences between each data point and the mean, providing a measure of how much the data points vary from the mean in squared units. Standard deviation, on the other hand, is the square root of the variance, bringing the measure back to the same units as the data. While variance gives a broader view of dispersion, standard deviation is often more intuitive as it directly relates to the original data scale, making it easier to interpret in practical situations.

Variance is calculated by taking the average of the squared differences between each data point and the mean.Standard deviation is the square root of the variance, which brings the measure back to the same units as the data. This makes standard deviation a more intuitive way to understand the spread of data around the mean. The formulas used to calculate standard deviation and variance are listed below:

A close up of a paper

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