

Krish Naik Youtube interviews

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1. What is pdf and cdf? pdf is the distribution of a given variable. Cdf is the summation of the distribution of a variable.

A point in pdf corresponds to the prob variable on x-axis. A point in cdf corresponds to the total probabilities up to that point in x-axis.

$$\Pr(a \leq x \leq b) = \int_a^b f(x) dx$$

if $F(x)$ is cdf of $f(x)$ then,

$$F(x) = \int_{-\infty}^x f(u) du$$

CDF is always monotonically increasing function.

for standard normal distribution,

$$\text{prob density fun pdf } f(x) = \int_{-\infty}^{+\infty} f(x) dx$$

for normal dist,

$$f(x) = \frac{1}{\sigma \sqrt{2\pi}} \exp\left(-\frac{(x-\mu)^2}{2\sigma^2}\right)$$

area under pdf is summed to 1 but not cdf.

1. can u calculate percentile from cdf?

area under cdf is not summed to 1. but still calculating a percentile (or a p-quantile) is equivalent to finding the inverse of a CDF.