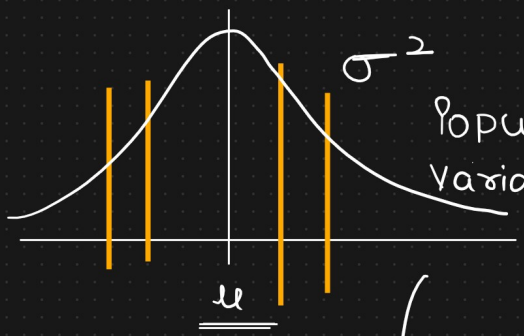
Variance



$\mu \rightarrow$ Population Mean

$$\text{Population Variance} = \frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2$$

$n << N$

$$S^2 = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})^2$$

$\bar{x} \rightarrow$ sample mean

$$SD \rightarrow \sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2}$$

Research

INTERVIEW Question

Why sample variance dividing by $n-1$??

(why not n)