

Bernoulli Distribution

Data Science and A.I. Lecture Series

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- A random variable X following a Bernoulli distribution takes values:

$$P(X = x) = \begin{cases} p, & x = 1 \\ 1 - p, & x = 0 \end{cases} \quad (1)$$

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- If X_1, X_2, \dots, X_n are independent Bernoulli variables with the same p , their sum follows a Binomial distribution.

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- If we repeat this experiment multiple times, the sum follows a Binomial distribution.

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