

## Lecture 3: Distributions

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- 4 Prediction Advantage
- 5 Intuition: More the difference, easier to predict whether the sample was sampled according to the distribution  $X$  or  $Y$

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- 3 Equivalent!

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- Think: SD between  $U_n$  and  $f(U_{n-1})$  for any function  $f: \{0, 1\}^{n-1} \rightarrow \{0, 1\}^n$
- Think: What if there are more than two distributions?

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  - Prediction Advantage