How to model $p(x)$

- $\log \widehat{p}(x) = \text{CNN}(x)$ Infeasible

- Use the chain rule

$p(x_1, \ldots, x_d)$

$= p(x_1)p(x_2 \mid x_1) \ldots p(x_d \mid x_1, \ldots, x_{d-1})$