

BAYE'S THEOREM

$$\overbrace{p_{\hat{\theta}}(\mathbf{z}|\mathbf{x})}^{\text{posterior}} = \frac{\overbrace{p_{\hat{\theta}}(\mathbf{x}|\mathbf{z})}^{\text{likelihood}} \cdot \overbrace{p_{\hat{\theta}}(\mathbf{z})}^{\text{prior}}}{\underbrace{p_{\hat{\theta}}(\mathbf{x})}_{\text{evidence}}} \quad (1)$$

1. Then latent feature values z are sampled from $p_{\hat{\theta}}(\mathbf{z})$.
2. And observations x are sampled from $p_{\hat{\theta}}(\mathbf{x}|\mathbf{z})$.