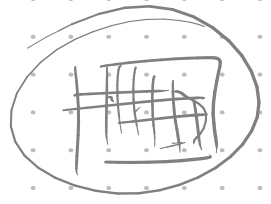
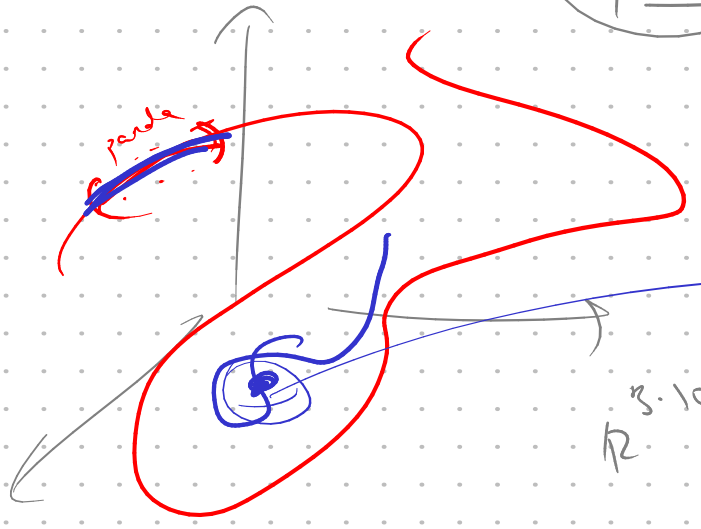


y = "panda"

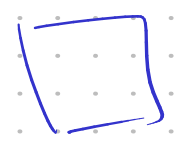


"panda"

$p(y|\bar{x})$ $p(\bar{x})$



10^6
 10^6



$$p(\theta|D) = \frac{p(D|\theta) \cdot p(\theta)}{p(D)}$$

$$p(\bar{x}|D) = \int p(\bar{x}|\theta) p(\theta|D) d\theta$$

$$p(\bar{w}|D) = \mathcal{N}(\bar{w} | \bar{\mu}_N, \Sigma_N)$$

$$\bar{x} \mapsto \hat{y} = \bar{\mu}_N^T \bar{x}, \quad \sigma^2$$

predictable
distr.

$$p(y|D) = \dots = \mathcal{N}(y | \bar{\mu}_N^T \bar{x}, \sigma^2 + \bar{x}^T \Sigma_N \bar{x})$$