

Level 1    $(w, b)$

$$\begin{array}{ccc} p(w, b | \mathcal{D}, \mu, \zeta, \mathcal{H}_\sigma) & p(\mathcal{D} | w, b, \mu, \zeta, \mathcal{H}_\sigma) & p(w, b | \mu, \zeta, \mathcal{H}_\sigma) \\ & \text{Likelihood} & \text{Prior} \\ \text{Maximize Posterior} \longleftarrow & \text{---} & \end{array}$$

Evidence

Level 2    $(\mu, \zeta)$

$$\begin{array}{ccc} p(\mu, \zeta | \mathcal{D}, \mathcal{H}_\sigma) & p(\mathcal{D} | \mu, \zeta, \mathcal{H}_\sigma) = & p(\mu, \zeta | \mathcal{H}_\sigma) \\ & \swarrow & \text{Prior} \\ \text{Maximize Posterior} \longleftarrow & \text{---} & \end{array}$$

Likelihood

Evidence

Level 3    $(\sigma)$

$$\begin{array}{ccc} p(\mathcal{H}_\sigma | \mathcal{D}) & p(\mathcal{D} | \mathcal{H}_\sigma) = & p(\mathcal{H}_\sigma) \\ & \swarrow & \text{Prior} \\ \text{Maximize Posterior} \longleftarrow & \text{---} & \end{array}$$

Likelihood

Evidence

$$p(\mathcal{D})$$