Summary of Expectation Maximization

$$\log p(X \mid \theta) \geq \mathcal{L}(\theta, q) \text{ for any } q$$

Variational lower bound

E-step

$$q^{k+1} = \arg \max_{q} \mathcal{L}(\theta^k, q)$$

M-step

$$\theta^{k+1} = \arg \max_{\theta} \mathcal{L}(\theta, q^{k+1})$$