Expectation Maximization

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1 Introduction

- E step.Expectation

$$Q(theta, theta^{(i)}) = \sum_Z logP(Y, Z|theta)P(Z|Y, theta^{(i)})$$

- M step.Maximize parameters

$$theta^{(i+1)} = argmax_{theta}Q(theta, theta^{(i)})$$

- Convergence without guarantee of global optimum. $P(Y|theta^{(i+1)}) >= P(Y|theta^{(i)})$