# What is Bayesian Statistics?

ML: What is the parameter value that maximizes the probability of having generated the data:

$$\underset{\theta}{\operatorname{argmax}} \left[ P(y \mid \theta) \right]$$

Bayesian: What is the probability distribution of parameter values given the data:

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Attention! No maximization!

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# Prior × Likelihood ∝ Posterior

$$P(A \mid B) = \frac{P(B \mid A)P(A)}{P(B)}$$