

# Intro to Bayesian Stats

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## Outline

Bayesian Stats (In a Nutshell)

Solving Bayesian Problems

Solving Real Bayesian Problems

Necessary R Libraries

The JAGS language

Example Problem (Simple Stats)

Example Problem (Linear Regression)

Example Problem (GLM Models)

<p>The Posterior</p>	<p>The Evidence</p> <p>The probability of getting this evidence if this hypothesis were true</p>	<p>The Prior</p> <p>The probability of H being true, before gathering evidence</p>
<p><math>P(H E)</math></p> <p>The probability that the hypothesis (H) is true given the evidence (E)</p>	<p><math>P(H E)</math></p> <p>The marginal probability of the evidence (Prob of E over all possibilities)</p>	<p><math>P(H)</math></p>
$P(H E) = \frac{P(H E) P(H)}{P(E)}$		

Figure 1: