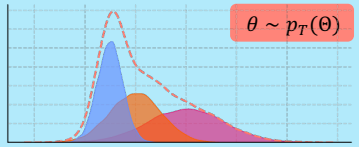
Task Descriptions

[You can predict TARGET based on FEATURES. Please provide a mean and standard deviation for a Gaussian prior for a linear model...]

A base task description is rephrased by an LLM many times to produce a distribution over relevant task descriptions.

LLM-Elicited Priors

The LLM outputs a Gaussian prior for each task description and feature, which we use to build a mixture model.



Data

Data points are used to update the prior to produce the posterior with Monte Carlo methods.

Calculate posterior

$$p(\theta|D) \propto p(D|\theta)\,p(\theta)$$

Make predictions