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DS 6014

Exercise 4.2
Bayesian Regression Graphs

Instructions: You may discuss this assignment with other students in the class, but you must submit your own answers to the questions below. Include an honor pledge with your submission. Submit online and in PDF. This exercise is ungraded.

1. Suppose we have a logistic regression problem with observations $y = (y_1, \ldots, y_N)^T$ and $x = (x_1, \ldots, x_N)^T$, coefficients $\boldsymbol{\beta}$, and the hyperparameter τ as the precision of Gaussian prior over $\boldsymbol{\beta}$. Draw a graphical representation of this model.