

Exercise 3.1 Bayes Optimality

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 you need to estimate the likelihood of failure for a machine in a manufacturing facility. If the posterior failure probability is $\text{Beta}(1,4)$, what is the the Bayes' optimal predictor of the failure probability using squared error loss?