

A prediction model that is composed of a set of models is called a model ensemble. For this assignment we were supposed to find the probability of a model ensemble that uses simple majority voting. In our case we have each question with differing error rate and varying models. I used survival function from scipy library because survival function is defined as $1 - \text{cdf}$, but is sometimes more accurate. It is similar if we had used cumulative distribution function where instead of $k = \text{np.floor}(n/2)$, we would have used $k = \text{np.ceil}(n / 2)$ resulting in same output. We changed the ceiling input with floor input, element-wise when working with survival function.