

Abstract: The purpose of the bachelor thesis is to introduce the reader to two approaches to the construction of prediction intervals. The first procedure assumes a probabilistic model and leads to a frequentist prediction interval that uses the relevant theoretical quantiles of probability distributions. The second procedure assumes no probabilistic model and leads to a conformal prediction interval that uses empirical quantiles of the relevant random sample. In the course of the paper, both approaches will be derived in general terms and then illustrated with concrete examples. The thesis also includes a simulation study comparing the empirical coverage of frequentist and conformal prediction intervals for random selections from different distributions.