

Random Forest Calibration

Mohammad Hossein Shaker¹ and Eyke Hüllermeier²

¹Institute of Informatics, University of Munich (LMU), Germany

Random forests are relatively well calibrated compared with other machine learning approaches; however, in sensitive applications, the need to calibrate output probability distributions remains a challenge. It has been shown in the literature that traditional calibration methods such as Platt scaling and Isotonic regression do not bring much-added value to the calibration of random forest probability distributions unless they are given massive calibration data sets, which for many applications with limited data, can be a problem. In this work, we will compare eight different calibration methods for random forests using metrics such as True calibration error (TCE) and evaluate their strength and weaknesses with both real and synthetic datasetsR1.