Review: On the Calibration of Aggregated Conformal Predictors

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1 Paper Profile

- Title: On the Calibration of Aggregated Conformal Predictors
- Author: Henrik Linusson, Ulf Norinder, Henrik Bostrom, Ulf Johansson, Tuve Lofstrom
- Publish Year: 2017

2 Contents in the paper

3 Summary

CP is a framework that produces models that associate with each of their predictions a measure of statistically valid confidence and the models produced are provably valid under relatively weak assumptions. Hence, given the autonomy of validity property arise in CP, many researchers have been focusing on

its efficiency in computation. In contrast, the validity of aggregated conformal predictors is not fully explored yet. In this present paper, they have showed why validity is not automatic for aggregated conformal predictors and provided a revised definition of aggregated conformal predictors that gains approximate validity conditional on properties of the underlying learning algorithm.

In this paper, they have investigated thoroughly the validity of aggregated conformal predictors, considering the definitions of cross-conformal predictors and bootstrap conformal predictors. They concluded that the validity of any aggregate conformal predictor is conditional on the nonconformity measure, in particular its ability to consistently rank individual objects amongst a group of objects