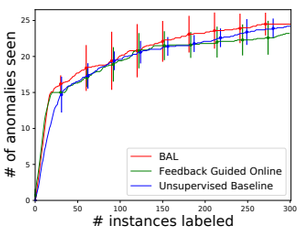
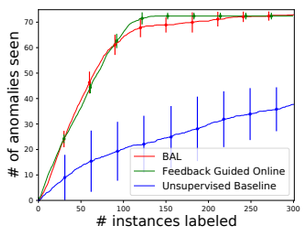
1 Comparison with related work

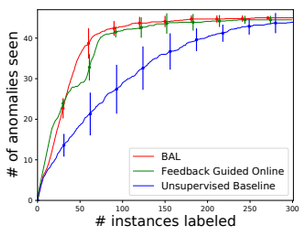
My former collaborators Siddiqui et al. have employed the same tree-based model I introduced, and compare a variety of loss functions. The linear loss (similar to the AAD loss) again performs best. This is no surprise. They start with the uniform weights and perform greedy-select-top query. The regularizer in their work does not let the weights vary a lot from previous iteration. This helps to hold the hyperplane in the region of uncertainty for most of the query budget and makes the greedy strategy label efficient.



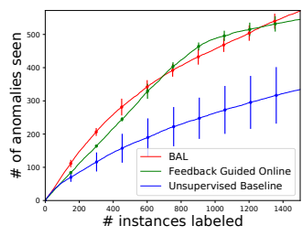
(a) Abalone



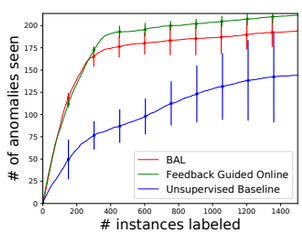
(b) ANN-Thyroid



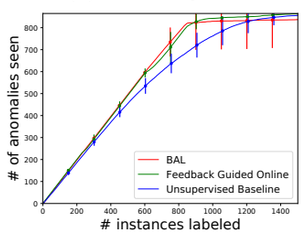
(c) Cardiotocography



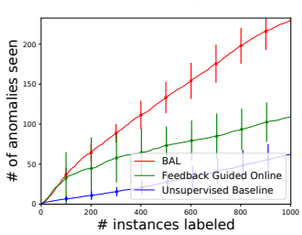
(d) Electricity



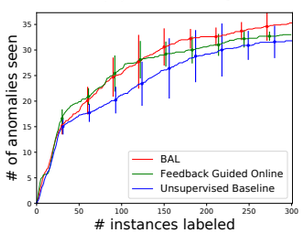
(e) Mammography



(f) Shuttle



(g) Weather



(h) Yeast

Comparison with Siddiqui et al. 2018. `BAL` is the tree-based model implemented in this codebase and employs the AAD loss (anomalies score higher than τ-th quantile score and nominals lower). `Feedback Guided Online` employs the linear loss in Siddiqui et al. 2018. `Unsupervised Baseline` is the unsupervised Isolation Forest baseline. Both seem to perform similar on most datasets. While `BAL` has slightly poor accuracy on *Mammography* than `Feedback Guided Online`, `BAL` performs much better on *Weather*.