Table 1: Feasible class proportions Δp^* , according to $\|\mathbf{d}\|_{\infty} \cdot \|\boldsymbol{\ell}_h\|_1$ certificates, which are computed for a ZeroOneLoss (weight=uniform) with $\epsilon = 0.1$ and $\delta = 0.05$.

data set	classifier	$L_S(h)$	\mathbf{p}_S^\top	Δp^*
optdigits optdigits	DecisionTreeClassifier LogisticRegression	0.100644 0.100447	$[0.7, 0.2, 0.1] \\ [0.7, 0.2, 0.1]$	0.16867 0.176589
satimage satimage	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.112616 \\ 0.108884 \end{array}$	$\begin{bmatrix} 0.58, 0.31, 0.11 \\ [0.58, 0.31, 0.11] \end{bmatrix}$	$\begin{array}{c} 0.214548 \\ 0.205845 \end{array}$
pendigits pendigits	DecisionTreeClassifier LogisticRegression	$0.053883 \\ 0.159285$	$\begin{bmatrix} 0.7, 0.2, 0.1 \\ [0.7, 0.2, 0.1] \end{bmatrix}$	$\begin{array}{c} 0.303549 \\ 0.136178 \end{array}$
eyemovements eyemovements	DecisionTreeClassifier LogisticRegression	$0.491909 \\ 0.514764$	$\begin{bmatrix} 0.35, 0.26, 0.39 \\ [0.35, 0.26, 0.39] \end{bmatrix}$	$\begin{array}{c} 0.064455 \\ 0.060947 \end{array}$
shuttle shuttle	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.005789 \\ 0.060663 \end{array}$	$\begin{bmatrix} 0.15, 0.79, 0.06 \\ [0.15, 0.79, 0.06] \end{bmatrix}$	$\begin{array}{c} 1.155548 \\ 0.235093 \end{array}$
connect4 connect4	DecisionTreeClassifier LogisticRegression	0.307306 0.343238	$\begin{bmatrix} 0.66, 0.1, 0.25 \\ [0.66, 0.1, 0.25] \end{bmatrix}$	0.068729 0.049199

Table 2: Feasible class proportions Δp^* , according to $\|\mathbf{d}\|_2 \cdot \|\boldsymbol{\ell}_h\|_2$ certificates, which are computed for a ZeroOneLoss (weight=uniform) with $\epsilon = 0.1$ and $\delta = 0.05$.

data set	classifier	$L_S(h)$	\mathbf{p}_S^\top	Δp^*
optdigits optdigits	DecisionTreeClassifier LogisticRegression	0.099398 0.09209	$[0.7, 0.2, 0.1] \\ [0.7, 0.2, 0.1]$	$\begin{array}{c} 0.223726 \\ 0.229475 \end{array}$
satimage satimage	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.104844 \\ 0.111685 \end{array}$	$\begin{bmatrix} 0.58, 0.31, 0.11 \\ 0.58, 0.31, 0.11 \end{bmatrix}$	$\begin{array}{c} 0.255497 \\ 0.238392 \end{array}$
pendigits pendigits	DecisionTreeClassifier LogisticRegression	$0.050335 \\ 0.162287$	$[0.7, 0.2, 0.1] \\ [0.7, 0.2, 0.1]$	$\begin{array}{c} 0.300265 \\ 0.139926 \end{array}$
eyemovements eyemovements	DecisionTreeClassifier LogisticRegression	$0.502065 \\ 0.517876$	$\begin{bmatrix} 0.35, 0.26, 0.39 \\ [0.35, 0.26, 0.39] \end{bmatrix}$	$\begin{array}{c} 0.093847 \\ 0.090552 \end{array}$
shuttle shuttle	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.005461 \\ 0.061335 \end{array}$	$\begin{bmatrix} 0.15, 0.79, 0.06 \\ [0.15, 0.79, 0.06] \end{bmatrix}$	$\begin{array}{c} 0.443371 \\ 0.190961 \end{array}$
connect4 connect4	DecisionTreeClassifier LogisticRegression	0.307336 0.34414	$\begin{bmatrix} 0.66, 0.1, 0.25 \\ [0.66, 0.1, 0.25] \end{bmatrix}$	0.087454 0.061917

Table 3: Feasible class proportions Δp^* , according to $\|\mathbf{d}\|_1 \cdot \|\boldsymbol{\ell}_h\|_{\infty}$ certificates, which are computed for a ZeroOneLoss (weight=uniform) with $\epsilon = 0.1$ and $\delta = 0.05$.

data set	classifier	$L_S(h)$	\mathbf{p}_S^\top	Δp^*
optdigits optdigits	DecisionTreeClassifier LogisticRegression	0.103311 0.094938	$[0.7, 0.2, 0.1] \\ [0.7, 0.2, 0.1]$	$\begin{array}{c} 0.241678 \\ 0.244842 \end{array}$
satimage satimage	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.107024 \\ 0.104219 \end{array}$	$\begin{bmatrix} 0.58, 0.31, 0.11 \\ [0.58, 0.31, 0.11] \end{bmatrix}$	$\begin{array}{c} 0.307459 \\ 0.303724 \end{array}$
pendigits pendigits	DecisionTreeClassifier LogisticRegression	$0.053247 \\ 0.163288$	$\begin{bmatrix} 0.7, 0.2, 0.1 \\ [0.7, 0.2, 0.1] \end{bmatrix}$	0.405433 0.157365
eyemovements eyemovements	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.497031 \\ 0.51266 \end{array}$	$\begin{bmatrix} 0.35, 0.26, 0.39 \\ [0.35, 0.26, 0.39] \end{bmatrix}$	$\begin{array}{c} 0.157753 \\ 0.152307 \end{array}$
shuttle shuttle	DecisionTreeClassifier LogisticRegression	$\begin{array}{c} 0.005944 \\ 0.061266 \end{array}$	$\begin{bmatrix} 0.15, 0.79, 0.06 \\ [0.15, 0.79, 0.06] \end{bmatrix}$	$\begin{array}{c} 1.190718 \\ 0.266753 \end{array}$
connect4 connect4	DecisionTreeClassifier LogisticRegression	0.302836 0.343267	$\begin{bmatrix} 0.66, 0.1, 0.25 \\ [0.66, 0.1, 0.25] \end{bmatrix}$	$\begin{array}{c} 0.118017 \\ 0.094233 \end{array}$