Table 1: Metrics used in the Optimization Problem

Fidelity	$disagreement(\mathcal{R}) = \sum_{i=1}^{M} |\{\boldsymbol{x} \mid \boldsymbol{x} \in \mathcal{D}, \boldsymbol{x} \text{ satisfies } q_i \wedge s_i, \mathcal{B}(\boldsymbol{x}) \neq c_i\}|$
Unambiguity	$ruleoverlap(\mathcal{R}) = \sum_{i=1}^{M} \sum_{j=1, i\neq j}^{M} overlap(q_i \wedge s_i, q_j \wedge s_j)$ $cover(\mathcal{R}) = |\{x \mid x \in \mathcal{D}, x \text{ satisfies } q_i \wedge s_i \text{ where } i \in \{1 \cdots M\}\}|$
Interpretability	$size(\mathcal{R})$: number of rules (triples of the form (q, s, c)) in $\mathcal{R}$ $maxwidth(\mathcal{R}) = \max_{e \in \bigcup_{i=1}^{M} (q_i \cup s_i)} width(e)$ $numpreds(\mathcal{R}) = \sum_{i=1}^{M} width(s_i) + width(q_i)$ $numdsets(\mathcal{R}) = |dset(\mathcal{R})|$ where $dset(\mathcal{R}) = \bigcup_{i=1}^{M} q_i$ $featureoverlap(\mathcal{R}) = \sum_{q \in dset(\mathcal{R})} \sum_{i=1}^{M} featureoverlap(q, s_i)$