Algorithm 1: Tri-Training

Input: Labelled data $\boldsymbol{L}$, unlabelled data $\boldsymbol{U}$ and learning algorithm *Learn*

for $i \in \{1..3\}$
  $S_i \leftarrow BootstrapSample(L)$
  $h_i \leftarrow Learn(S_i)$
  $h_i \leftarrow .5$; $l'_i \leftarrow 0$
endfor
repeat
  for $i \in \{1..3\}$
    $L_i \leftarrow \emptyset$
    $update_i \leftarrow False$
    $e_i \leftarrow MeasureError(h_j \& h_k)\ (j,k \neq i)$
    if $e_i < e'_i$
      for *every* $x \in U$
        if $h_j\ (x) = h_k\ (x)\ (j,k \neq i)$
          $L_i \leftarrow L_i \cup \{(x, h_j\ (x))\}$
        end
      endfor
      if $l'_i = 0$ /* h_i *has not been updated before* */
        $l'_i \leftarrow \lfloor \frac{e_i}{e'_i - e_i} + 1 \rfloor$
      end
      if $l'_i < |L_i|$
        if $e_i |L_i| < e'_i l'_i$
          $update_i \leftarrow True$
        end
        else if $l'_i > \frac{e_i}{e'_i - e_i}$
          $L_i \leftarrow Subsample(L_i, \lceil \frac{e'_i l'_i}{e_i} - 1 \rceil)$
          $update_i \leftarrow True$
        end
      end
    end
  endfor
  for $i \in \{1..3\}$
    if $update_i = True$
      $h_i \leftarrow Learn(L \cup L_i)$; $e'_i \leftarrow e_i$; $l'_i \leftarrow |L_i|$
    end
  endfor
until *none of* $h_i\ (i \in \{1..3\})$ *changes*
return $h(x) \leftarrow arg\ max_{y \in label} \sum_{i:h_i(x)=y} 1$