**Input**: An initial labelled training set $\mathcal{L}$, an unlabelled pool $\mathcal{U}$, a $k$-NN classifier $\mathcal{C}$ for classes $1 \dots c$, a stopping criterion $\mathcal{SC}$, a batch size $b$, a set of confidence measures $M_i$, $i = 1 \dots n$

**Output**: A labelled dataset

**while** $\mathcal{SC}$ *is not met* **do**

  **foreach** *confidence measure* $M_i, i = 1 \dots n$ **do**

    Identify the threshold: find $thres_{ij}$ and $k_{ij}$, for $j = 1 \dots c$;

  **end**

  $ConfSet = \emptyset$, $NonConfSet = \emptyset$, $Selected = \emptyset$;

  **foreach** *example* $e \in \mathcal{U}$ **do**

    Classify $e$ using the classifier $\mathcal{C}$;

    Calculate $m_i$ using $k_{ij}$ for $i = 1 \dots n$ and $j =$ predicted class of $e$;

    **if** $m_i > thres_{ij}$ *for any* $i = 1 \dots n$ *and* $j =$ *predicted class of* $e$ **then**

      $ConfSet = ConfSet + e$ ;

      Set the confidence score: $conf(e) = max(m_i)$;

    **else**

      $NonConfSet = NonConfSet + e$;

      Set the confidence score: $conf(e) = min(m_i)$;

    **end**

  **end**

  **foreach** $l, l = 1 \dots b$ **do**

    **if** $NonConfSet == \emptyset$ **then**

      $Selected = Selected \cup \{e_l\}$ where $conf(e_l) = min(conf(e)), e_l \in ConfSet$;

      $ConfSet = ConfSet / \{e_l\}$;

    **else**

      $Selected = Selected \cup \{e_l\}$ where $conf(e_l) = min(conf(e)), e_l \in NonConfSet$;

      $NonConfSet = NonConfSet / \{e_l\}$;

    **end**

  **end**

  Label each $e_l \in Selected$ ;

  $\mathcal{L} = \mathcal{L} \cup Selected$ , $\mathcal{U} = \mathcal{U} / Selected$ ;

**end**