

Algorithm 1 DetectingFalseNegatives (Aggregate tracking table ATT , Probabilistic distance-aware graph model G_{pdm})

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1:  $path \leftarrow \emptyset$ ;  $neighbors \leftarrow \emptyset$ ;  
2: for each  $tr$  in  $ATT$  do  
3:    $neighbors \leftarrow getNeighbors(tr.deviceID, G_{pdm})$   
4:   if ( $neighbors.length > 0$ ) then  
5:      $tr' \leftarrow$  the next record in  $ATT$  such that ( $tr.objectID$   
        $= tr'.objectID$ )  
6:     if ( $tr' = \text{null}$ ) then  
7:       continue  
8:     if ( $tr'.deviceID \in getNeighbors(tr.deviceID, G_{pdm})$   
       then  
9:       continue  
10:    else  
11:       $path \leftarrow findPath(G_{pdm}, tr, tr')$   
12:       $prev_{te} \leftarrow tr.te$   
13:       $FalseNegativeRecovery(prev_{te}, path)$ 
```
