
Algorithm 1 Selection of knowledge injection phase with ranking of suitable ML

Input: Type of use case and available knowledge form

Output: Phase suitable to inject domain knowledge and ranking of ML models

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1: function GETPHASES(Usecase, Knowledgeform) ▷ Return suitable injection phases
   based on the input
2:   Conversion,  $C=c_1, c_2, \dots, c_n$  where  $C \in (Usecase \cap Knowledgeform)$ 
3:   for each  $c_i \in C$  do
4:     for each Phase  $\in c_i$  do
5:       if Phase not in InjectionList then
6:         InjectionList.add(Phase)
7:       end if
8:     end for
9:   end for
10:  return InjectionList
11: end function
12: function RANKMLMODELS(Usecase, InjectionList) ▷ Return top 5 suitable ML
   model with corresponding ranking
13:  for each Phase  $\in InjectionList$  do
14:    for each unique  $u_i \in Usecase$  do
15:      for each  $m_i \in Models$  do
16:        if  $m_i$  is mostsuitable then ▷ if the model provides best result among
          other experimented models for any use case
17:          score  $S \leftarrow highscore$ 
18:        else
19:          score  $S \leftarrow defaultscore$  ▷ if the model is applied in the use case
20:        end if
21:        if  $m_i \in MLlist$  then
22:           $m_iScore \leftarrow m_iScore + S$ 
23:        else
24:          MLlist.add(mi)
25:           $m_iScore \leftarrow S$ 
26:        end if
27:      end for
28:    end for
29:  end for
30:  MLlist.sort(miScore) ▷ Sort MLlist according to corresponding scores
31:  return Top 5 ML models with  $m_iScore$ 
32: end function

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