Algorithm 1: Training Algorithm

Input: Search Results **R**, Website Descriptions **D**, Labels **L**

for i< epoch number do

input search results to encoder : representation

input representation to decoder : decoder output

compute the loss between decoder output and Web Description

input representation to attention classifier **g:** prediction

compute the loss between labels and prediction

optimize the model:

update the model params **W, B** of the model using Adam optimizer

Do

Ouput: **W, B**

Algorithm 2: Predicting Algorithm

Input: Search Results **R,** Model params **W, B**

model load parameters **W, B**

input search results to encoder : representation

input representation to attention classifier **g:** prediction

Ouput: predicting results **P**