

# Assignment4

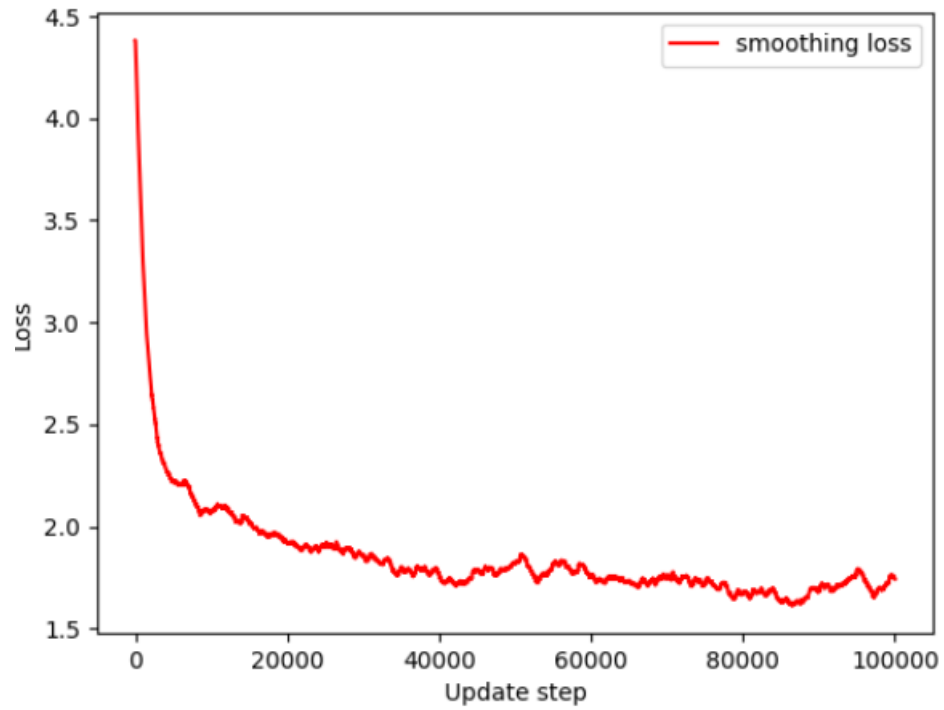
## Question1 :

To show the difference between the torch and numpy, I compare the diff including P, Loss(forward\_pass result), W, U, b, V, c. It is clearly that all diff is less than the  $1e-6$ .

P	8.673617379884035e-18
Loss	8.881784197001252e-16
W	1.0408340855860843e-17
U	2.7755575615628914e-17
b	1.3877787807814457e-16
V	5.204170427930421e-18
c	4.163336342344337e-17

### ***Question2 :***

The chart shows the smoothing loss in the train progress:



### ***Question3 :***

The first step:

Sampled Text (Iteration 1):

```
0'v RSLBga^y_.-7hh4.:X4qxPB•b,c•ü!W?4xüdwNcb2ar;HV
cjER;d1/9Fhc;Cu;4d66}df"G_9b,0SQFQU!2DLh3!VAdypLJVFÜDpEKxqqb?9sz:Eeq?ZR?9Xp20Q
4XGK97;d"d-VL!n3Ik(AkDdffFg-ef1;!3tqmK1uWb9RQVKQ!)R;:ZP2;kDw9uU^6NEboR
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#### ***Question4 :***

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