

YELP Result using nucleus sampling:

4 epoch CC + 2 epoch RL+CC

0.8572840786890795

0.8573274385610056

0.8572916666666667

BLEU = 75.91 88.0/79.2/72.3/65.9 (BP = 1.000 ratio = 1.019 hyp_len = 10146 ref_len = 9956)

391.8466334911684

4 epoch CC + 1 epoch RL+CC

0.7790506298880924

0.7788396539270479

0.7791666666666667

BLEU = 70.34 87.0/75.2/65.7/56.9 (BP = 1.000 ratio = 1.016 hyp_len = 10120 ref_len = 9956)

293.47291506578523

YELP result using greedy decoding:

4 epoch CC + 1 epoch CC+RL

0.768668672580204

0.7684879449806573

0.76875

BLEU = 74.07 89.1/78.6/69.7/61.7 (BP = 1.000 ratio = 1.011 hyp_len = 10069 ref_len = 9956)

253.67533734316626

4 epoch CC+2 epoch CC+RL

0.8707879072069609

0.8708888541544553

0.8708333333333333

BLEU = 77.67 89.0/80.6/74.3/68.3 (BP = 1.000 ratio = 1.020 hyp_len = 10151 ref_len = 9956)

BLEU = 25.28 48.8/30.2/20.3/13.7 (BP = 1.000 ratio = 1.131 hyp_len = 10151 ref_len = 8976) - conservative

BLEU = 31.37 54.5/36.1/25.9/19.0 (BP = 1.000 ratio = 1.128 hyp_len = 10151 ref_len = 8997)

376.70071596776444

Yelp result using NLL reward and BERTSCORE+BLEU harmonic mean reward

4 epoch CC+1 epoch CC+RL

0.7972266740993659

0.7977195259331521

0.7979166666666667

BLEU = 75.24 88.8/83.0/77.5/72.0 (BP = 0.939 ratio = 0.941 hyp_len = 9371 ref_len = 9956) compared to source

BLEU = 30.78 53.6/35.8/25.4/18.5 (BP = 1.000 ratio = 1.042 hyp_len = 9371 ref_len = 8997) compared to human reference

BLEU = 25.07 48.4/30.2/20.1/13.5 (BP = 1.000 ratio = 1.044 hyp_len = 9371 ref_len = 8976) compared to human reference

-conservative estimate

72.55134987533093

Style transformer

tensor(372.3187, device='cuda:0')

BLEU = 23.42 48.3/28.8/18.4/11.8 (BP = 1.000 ratio = 1.156 hyp_len = 10672 ref_len = 9234) for style-transformer with human references

