Team member: Chenwu Liao, Mohammad Tavasoli.

1. On train.txt: Loss 3.2242258963584898, Perplexity:

29.79254131793851(colab)

```
[01:21<00:02, 17.41it/s]^MEvaluating: 97%| | 1419/1463 [01:21<00:02, 17.43it/s]^MEvaluating: 97%| | 1425/1463 [01:21<00:02, 17.39it/s]^MEvaluating: 98%| | 1431/1463 [01:22<00:01, 17.38it/s]^MEvaluating: 98%| | 1431/1463 [01:22<00:01, 17.38it/s]^MEvaluating: 98%| | 1437/1463 [01:22<00:01, 17.39it/s]^MEvaluating: 98%| | 1439/1463 [01:22<00:01, 17.40it/s]^MEvaluating: 99%| | 1445/1463 [01:23<00:01, 17.40it/s]^MEvaluating: 99%| | 1451/1463 [01:23<00:01, 17.40it/s]^MEvaluating: 99%| | 1451/1463 [01:23<00:00, 17.39it/s]^MEvaluating: 99%| | 1451/1463 [01:23<00:00, 17.39it/s]^MEvaluating: 99%| | 1451/1463 [01:23<00:00, 17.40it/s]^MEvaluating: 100%| | 1463/1463 [01:24<00:00, 17.40it/s]^MEvaluating: 100
```

(greatlakes)

- 2. Perplexity On dev.txt :50.31321339659631
- 3. Perplexity On test, txt: 53.59972394397694

```
04/28/2020 15:59:44 - INFO - __main__ - ***** Eval results *****
04/28/2020 15:59:44 - INFO - __main__ - perplexity = 53.59972394397694
```

## Generation:

- a. My: My shoulder! " i shout, and when i see that the rest of the group are well away from us, i do it. " i need this table
- b. The: The music came on. i was staring at the screen, but my eyes were trying to focus on words when a more painful sound occurred. a piercing shriek rang
- c. One: One she still felt. he was standing at the edge of the driveway, his hands in his pockets and watching the way she always watched him. they never
- d. When :When you say it. she said, 'i don't know. the red light is so bright i feel dizzy. " " well, i think that all
- e. If : If you want to. but you don't. " " i 'll do it, " said
  wensleydale. " i will. " he glanced
- f. Our: Our leg with it. " i want to have kids. " " it's not your fault that your body and mind are screwed. " i glance
- g. First:First much nothing, " tommy said. " i 'll be back as soon as i can, " oriole stated. " what's going on? " "  $\!\!\!$

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- h. Natural: Natural matter in the way that one's purpose in life is to find other people, but you never see yourself doing the right thing. here, i am simply following
- i. We:We're doing it. we're not leaving. " " it's not that simple. i 'll fly us to uso. we have a shield around us
- j. Because: Because it didn't. 'i think i 'd better get out of here, 'he said. she said, 'you can't. you've got

## Part 2 result:

trained 2 epoch

got 93 percent accuracy for dev

74 percent accuracy for test

And 20 percent accuracy for data 10generated