

Assignment 1

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1 Problem 1

Assignment 1 requested that we use PyTorch to build a RNN to generate poetry based on 154 sonnets from William Shakespeare. A sonnet is thought to be amenable to generative modeling because they follow a specific format. The approach I chose is based on a PyTorch tutorial [1] on generating Shakespeare using a character-level RNN. Improvements to this model were based on Deep-speare by Lau et. al. (2018) [2]. I review the pre-processing, RNN, and RNN improvements I took during this assignment. One of my key take-aways is that feature engineering is still an important part of model performance for this application of deep learning.

1.1 Pre-processing

1.2 RNN

1.3 Improving RNNs

1.4 Discussion

I would have gone deeper.

References

- [1] spro. practical-pytorch/char-rnn-generation.ipynb at master · spro/practical-pytorch. <https://github.com/spro/practical-pytorch/blob/master/char-rnn-generation/char-rnn-generation.ipynb>, Jul 2017. (Accessed on 02/24/2019).
- [2] Jey Han Lau, Trevor Cohn, Timothy Baldwin, Julian Brooke, and Adam Hammond. Deep-speare: A joint neural model of poetic language, meter and rhyme, 2018.