## 

## **Cyclical Learning Rates for Fast Ensemble Model**

## **Anonymous EMNLP submission**

## **Abstract**

Cyclical learning rates, faster ensemble, (stochastic) MCMC sample, second optimization(whole sequence), combine with adaptive LR, LR schedule(exp or Tmul), interpolation(multi points), noise

- 1 Introduction
- 2 Background
- 3 Cyclical learning rates for faster ensemble model
- 3.1 baseline: several methods

first: find best LR baseline:

- SGD decay
- exp decay

cyclical learning rates:

- high2low
- cosine, warm start ...
- 3.2 interpolation
- 3.3 schedule
- 3.4 combine with adaptive
- 3.5 MCMC and noise
- 3.6 connection with ...
- 4 Experiments
- 4.1 figures to reproduce
  - best learning rate
  - combine with adaptive learning rate (BN? dropout?)
  - cyclical learning rates AND test accuracy

• cyclical learning rates VERSUS fix learning rate

- decay schedule: no decay, fix decay, exp decay VERSUS trajectory ensemble
- distance to prove robustness?
- iterate averaging as approximate MCMC
- CLR, BS, cyclical momentum, weight decay?
- 4.2 visualization
- 5 Related works
- 6 Discussion
- 7 Conclusion
- A Supplemental Material

supplement ...