

# neural-collaborative-filtering

## Files

`data.py` : prepare train/test dataset  
`utils.py` : some handy functions for model training etc.  
`metrics.py` : evaluation metrics including hit ratio(HR) and NDCG  
`gmf.py` : generalized matrix factorization model  
`mlp.py` : multi-layer perceptron model  
`neumf.py` : fusion of gmf and mlp  
`engine.py` : training engine  
`train.py` : entry point for train a NCF model

It can be observed that NeuMF performs better than MLP and GMF.

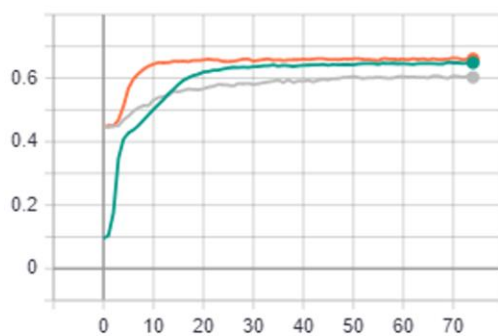
## Pytorch Versions

The repo works under torch 1.0. You can find the old versions working under torch 0.2 and 0.4 in **tags**.

## TODO

- Batchify the test data to handle large dataset.

HR  
tag: performance/HR



NDCG  
tag: performance/NDCG

