

This repository

Search

Pull requests

Issues

Marketplace

Gist

hmishra2250 / NTM-One-Shot-TF

Watch

10

Star

107

Fork

32

<> Code

Issues 1

Pull requests 0

Projects 0

Wiki

Insights

One Shot Learning using Memory-Augmented Neural Networks (MANN) based on Neural Turing Machine architecture in Tensorflow

[tensorflow](#) [one-shot-learning](#) [neural-turing-machines](#) [Istm](#) [neural-networks](#) [data-science](#) [machine-learning](#) [deep-learning](#)

51 commits

1 branch

0 releases

1 contributor

MIT

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

hmishra2250 committed on GitHub Merge pull request #4 from hmishra2250/add-code-of-conduct-1 ... Latest commit 9933703 24 days ago		
Examples	Small changes	4 months ago
MANN	Tensorflow 1.1 support added	2 months ago
data/omniglot	Small changes	4 months ago
.gitignore	Small changes	4 months ago
CODE_OF_CONDUCT.md	Create CODE_OF_CONDUCT.md	24 days ago
LICENSE	Create LICENSE	4 months ago
Omniglot.py	Tensorflow 1.1 support added	2 months ago
README.md	Tensorflow 1.1 update readme	2 months ago
TestUpd.py	Small changes	4 months ago
testing.py	Small changes	4 months ago

README.md

One Shot Learning using Memory-Augmented Neural Networks in Tensorflow.

Update: added support for Tensorflow v1*.

Tensorflow implementation of the paper *One-shot Learning with Memory-Augmented Neural Networks*.

Current Progress of Implementation:

- ☒ Utility Functions:
 - ☒ Image Handler
 - ☒ Metrics (Accuracy)
 - ☒ Similarities (Cosine Similarity)
- ☒ LSTM Controller and Memory Unit
- ☒ Batch Generators
- ☒ Omniglot Tester Code
- ☐ Unsupervised Feature Learning through Autoencoders
- ☐ Cattle/New Born Recognition

The benchmark dataset is [Omniglot dataset](#). All the datasets should be placed in the [data/](#) folder.

Adam Santoro, Sergey Bartunov, Matthew Botvinick, Daan Wierstra, Timothy Lillicrap, *One-shot Learning with Memory-Augmented Neural Networks*, [\[arXiv\]](#)

