
torecsys

Release dev

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Apr 08, 2022

PACKAGE REFERENCE

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sphinx-quickstart on Wed Aug 14 16:39:23 2019. You can adapt this file completely to your liking, but it should at least contain the root *toctree* directive.

github_url <https://github.com/p768lwy3/torecsys>

Recommendation System in PyTorch.

This package is an implementation of several famous recommendation system algorithm in PyTorch, including click-through-rate prediction, learning-to-ranking and embedding. ToR[e]csys also comes with data loader, layers-level implementation, self-defined architecture of models. It's open-source software, released under the MIT license.

MINIMAL REQUIREMENTS

- Numpy $\geq 1.17.0$
- Pandas $\geq 0.24.2$
- PyTorch ≥ 1.2

INSTALLATION

Install with pip:

```
pip install torecsys
```

Install with source code:

```
git clone https://github.com/p768lwy3/torecsys.git
cd ./torecsys
python setup.py build
python setup.py install
```


NOTATIONS IN DOCUMENTATION

Table 1: notations

Notation	Refer to
T	torch.Tensor
B	batch size
E	embedding size
H_i	output size of i-th hidden layer
N	number of fields
I	input sizes of any layers required <i>inputs_size</i>
O	output size of any layers required <i>outputs_size</i>
V	total number of words in a vocabulary set
S	total number of samples, e.g. negative samples

API DOCUMENTATION

4.1 torecsys

4.1.1 torecsys package

Subpackages

torecsys.data package

Subpackages

torecsys.data.dataloader package

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torecsys.data.dataloader.fields package

Submodules

torecsys.data.dataloader.fields.sentence_field module

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torecsys.data.dataloader.collate_fn module

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torecsys.data.dataset package

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torecsys.data.dataset.dataset module

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toresys.data.negsampling package

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toresys.data.negsampling.multinomial_sampler module

toresys.data.negsampling.uniform_sampler module

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toresys.data.sampledata package

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toresys.data.sampledata.download_data module

toresys.data.sampledata.load_data module

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toresys.estimators package

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toresys.estimators.ctr package

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toresys.estimators.emb package

Submodules

toresys.estimators.emb.starspace module

Module contents

toresys.estimators.ltr package

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torecsys.functional package

Submodules

torecsys.functional.attention module

torecsys.functional.inner_product_similarity module

torecsys.functional.regularization module

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torecsys.inputs package

Subpackages

torecsys.inputs.base package

Submodules

torecsys.inputs.base.audio_inp module

torecsys.inputs.base.concat_inputs module

torecsys.inputs.base.image_inp module

torecsys.inputs.base.images_list_inp module

torecsys.inputs.base.list_indices_emb module

torecsys.inputs.base.multi_indices_emb module

torecsys.inputs.base.multi_indices_field_aware_emb module

torecsys.inputs.base.pretrained_image_inp module

torecsys.inputs.base.pretrained_text_inp module

torecsys.inputs.base.sequence_indices_emb module

torecsys.inputs.base.single_index_emb module

torecsys.inputs.base.stacked_inp module

torecsys.inputs.base.text_inp module

torecsys.inputs.base.timeseries_inp module

torecsys.inputs.base.timestamp_inp module

torecsys.inputs.base.value_inp module

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torecsys.inputs.inputs_wrapper module

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torecsys.layers package

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torecsys.layers.ctr package

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torecsys.layers.ctr.attentional_factorization_machine module

torecsys.layers.ctr.bilinear module

torecsys.layers.ctr.compose_excitation_network module

torecsys.layers.ctr.compress_interaction_network module

torecsys.layers.ctr.cross_network module

torecsys.layers.ctr.factorization_machine module

torecsys.layers.ctr.field_aware_factorization_machine module

torecsys.layers.ctr.inner_product_network module

torecsys.layers.ctr.multilayer_perceptron module

torecsys.layers.ctr.outer_product_network module

torecsys.layers.ctr.wide module

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torecsys.layers.emb package

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torecsys.layers.emb.generalized_matrix_factorization module

torecsys.layers.emb.starspace module

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torecsys.layers.ltr package

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torecsys.losses package

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torecsys.losses.ctr package

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torecsys.losses.emb package

Submodules

torecsys.losses.emb.functional module

torecsys.losses.emb.skipgram module

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torecsys.losses.ltr package

Submodules

torecsys.losses.ltr.functional module

torecsys.losses.ltr.groupwise_ranking_loss module

torecsys.losses.ltr.pairwise_ranking_loss module

torecsys.losses.ltr.pointwise_ranking_loss module

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toresys.metrics package

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toresys.metrics.metrics module

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toresys.models package

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toresys.models.ctr package

Submodules

toresys.models.ctr.attentional_factorization_machine module

toresys.models.ctr.deep_and_cross_network module

toresys.models.ctr.deep_ffm module

toresys.models.ctr.deep_fm module

toresys.models.ctr.deep_mcp module

toresys.models.ctr.elaborated_entire_space_supervised_multi_task module

toresys.models.ctr.entire_space_multi_task module

toresys.models.ctr.factorization_machine module

toresys.models.ctr.factorization_machine_supported_neural_network module

toresys.models.ctr.fat_deep_ffm module

toresys.models.ctr.field_aware_factorization_machine module

toresys.models.ctr.logistic_regression module

toresys.models.ctr.neural_collaborative_filtering module

torecsys.models.ctr.neural_factorization_machine module

torecsys.models.ctr.product_neural_network module

torecsys.models.ctr.wide_and_deep module

torecsys.models.ctr.xdeep_fm module

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torecsys.models.emb package

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torecsys.models.emb.matrix_factorization module

torecsys.models.emb.starspace module

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torecsys.utils package

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torecsys.utils.decorator package

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torecsys.utils.decorator.decorator module

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torecsys.utils.logging package

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torecsys.utils.logging.tqdm module

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toresys.utils.training package

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toresys.utils.training.ranking_trainer module

toresys.utils.training.trainer module

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toresys.utils.utils package

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toresys.utils.utils.combination module

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toresys.utils.sequential module

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INDICES AND TABLES

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- `modindex`
- `search`