
DiscreetAI

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JS LIBRARY

DiscreetAI's custom JS library for setting up datasets on the client side for training.

1.1 API

bootstrapLibrary (*repoID*, *X*, *y*)

Bootstrap the library by storing the initial data and connecting to the server.

Arguments

- **repoID** (*string*) – The repo ID associated with the dataset.
- **x** (*tf.Tensor2D*) – The datapoints to train on.
- **y** (*tf.Tensor1D*) – The labels for the datapoints.

addMoreData (*repoID*, *X*, *y*)

Add more data after bootstrapping.

Arguments

- **repoID** (*string*) – The repo ID associated with the dataset.
- **x** (*tf.Tensor2D*) – The datapoints to train on.
- **y** (*tf.Tensor1D*) – The labels for the datapoints.

isBootstrapped ()

Returns *true* if the library is bootstrapped, *false* otherwise.

EXPLORA

Explora is a customized Jupyter Notebook used for starting decentralized training sessions.

2.1 explora

```
async explora.start_new_session(self, repo_id, model, hyperparameters, percentage_averaged=0.75, max_rounds=5, library_type='PYTHON', checkpoint_frequency=1)
```

Validate arguments and then start a new session by sending a message to the server with the given configuration. Designed to be called in *Explora.ipynb*.

Parameters

- **repo_id** (*str*) – The repo ID associated with the current dataset.
- **model** (*keras.engine.Model*) – The initial Keras model to train with. The model must be compiled!
- **hyperparams** (*dict*) – The hyperparameters to be used during training. Must include *batch_size*!
- **percentage_averaged** (*float*) – Percentage of nodes to be averaged before moving on to the next round.
- **max_rounds** (*int*) – Maximum number of rounds to train for.
- **library_type** (*str*) – The type of library to train with. Must be either *PYTHON* or *JAVASCRIPT*.
- **checkpoint_frequency** (*int*) – Save the model in S3 every *checkpoint_frequency* rounds.

Examples

```
>>> start_new_session(
...     repo_id="c9bf9e57-1685-4c89-bafb-ff5af830be8a",
...     model=keras.models.load_model("model.h5"),
...     hyperparameters={"batch_size": 100},
...     percentage_averaged=0.75,
...     max_rounds=5,
...     library_type="PYTHON",
...     checkpoint_frequency=1,
... )
```

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```
Starting session!  
Waiting...  
Session complete! Check dashboard for final model!
```


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