

FrovedisDvector

NAME

FrovedisDvector - A data structure used in modeling the in-memory dvector data of frovedis server side at client python side.

SYNOPSIS

```
class frovedis.matrix.dvector.FrovedisDvector(vec=None)
```

Public Member Functions

```
load (vec)
load_numpy_array (vec)
debug_print()
release()
```

DESCRIPTION

FrovedisDvector is a pseudo data structure at client python side which aims to model the frovedis server side `dvector<double>` (see manual of frovedis dvector for details).

Note that the actual vector data is created at frovedis server side only. Python side FrovedisDvector contains a proxy handle of the in-memory vector data created at frovedis server, along with its size.

Constructor Documentation

FrovedisDvector (vec=None)

Parameters

vec: It can be any python array-like object or None. In case of None (Default), it does not make any request to server.

Purpose

This constructor can be used to construct a FrovedisDvector instance, as follows:

```
v1 = FrovedisDvector()           # empty dvector, no server request is made
v2 = FrovedisDvector([1,2,3,4]) # will load data from the given list
```

Return Type

It simply returns “self” reference.

Pubic Member Function Documentation

load (vec)

Parameters

vec: It can be any python array-like object (but not None).

Purpose

This function works similar to the constructor. It can be used to load a FrovedisDvector instance, as follows:

```
v = FrovedisDvector().load([1,2,3,4]) # will load data from the given list
```

Return Type

It simply returns “self” reference.

load__numpy__array (vec)

Parameters

vec: Any numpy array with values to be loaded in.

Purpose

This function can be used to load a python side numpy array data into frovedis server side dvector. It accepts a python numpy array object and converts it into the frovedis server side dvector whose proxy along size information are stored in the target FrovedisDvector object.

Return Type

It simply returns “self” reference.

size()

Purpose

It returns the size of the dvector

Return Type

An integer value containing size of the target dvector.

debug__print()

Purpose

It prints the contents of the server side distributed vector data on the server side user terminal. It is mainly useful for debugging purpose.

Return Type

It returns nothing.

release()

Purpose

This function can be used to release the existing in-memory data at frovedis server side.

Return Type

It returns nothing.

FrovedisDvector.asDvec(vec)

Parameters

vec: A numpy array or python array like object or an instance of FrovedisDvector.

Purpose

This static function is used in order to convert a given array to a dvector. If the input is already an instance of FrovedisDvector, then the same will be returned.

Return Type

An instance of FrovedisDvector.