HMC_BNN

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

HMC_base 8
BNN_regression 7
HMC_dist 9

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

BNN_regression 7
HMC_base 8
HMC_dist 9

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

include/BNN_regression.h 11
include/HMC_base.h 11
include/HMC_dist.h 11

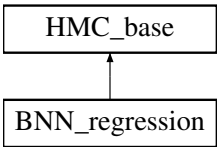
Chapter 4

Class Documentation

4.1 BNN_regression Class Reference

`#include <BNN_regression.h>`

Inheritance diagram for BNN_regression:



Public Member Functions

- BNN_regression (float e, int l, float *data, std::vector< float > weights, std::vector< float > targets, int h, int i, int n)
- float U (std::vector< float >)
- std::vector< float > delU (std::vector< float >)
- std::vector< float > FDdelU (std::vector< float >)

Private Member Functions

- float f (std::vector< float >, int)
- float LnPrior (std::vector< float >)

Private Attributes

- float * x
- int H
- int I
- int N
- float sig
- std::vector< float > w
- std::vector< float > t
- float sigb
- float sigv
- float siga
- float sigu

4.1.1 Constructor & Destructor Documentation

4.1.1.1 BNN_regression::BNN_regression (float *e*, int *l*, float * *data*, std::vector< float > *weights*, std::vector< float > *targets*, int *h*, int *i*, int *n*) [inline]

4.1.2 Member Function Documentation

4.1.2.1 std::vector<float> BNN_regression::delU (std::vector< float >) [virtual]

Implements HMC_base.

4.1.2.2 float BNN_regression::f (std::vector< float >, int) [private]

4.1.2.3 std::vector<float> BNN_regression::FDdelU (std::vector< float >)

4.1.2.4 float BNN_regression::LnPrior (std::vector< float >) [private]

4.1.2.5 float BNN_regression::U (std::vector< float >) [virtual]

Implements HMC_base.

4.1.3 Member Data Documentation

4.1.3.1 int BNN_regression::H [private]

4.1.3.2 int BNN_regression::I [private]

4.1.3.3 int BNN_regression::N [private]

4.1.3.4 float BNN_regression::sig [private]

4.1.3.5 float BNN_regression::siga [private]

4.1.3.6 float BNN_regression::sigb [private]

4.1.3.7 float BNN_regression::sigu [private]

4.1.3.8 float BNN_regression::sigv [private]

4.1.3.9 std::vector<float> BNN_regression::t [private]

4.1.3.10 std::vector<float> BNN_regression::w [private]

4.1.3.11 float* BNN_regression::x [private]

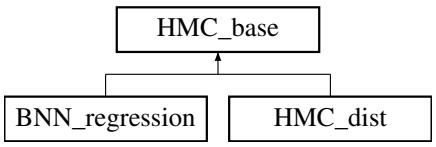
The documentation for this class was generated from the following file:

- include/BNN_regression.h

4.2 HMC_base Class Reference

`#include <HMC_base.h>`

Inheritance diagram for HMC_base:



Public Member Functions

- HMC_base (float e, int l)
- std::vector< float > it (std::vector< float > &q)
- virtual float U (std::vector< float >)=0
- virtual std::vector< float > delU (std::vector< float >)=0

Private Attributes

- float eps
- int L

4.2.1 Constructor & Destructor Documentation

4.2.1.1 HMC_base::HMC_base (float *e*, int *l*) [inline]

4.2.2 Member Function Documentation

4.2.2.1 virtual std::vector<float> HMC_base::delU (std::vector< float >) [pure virtual]

Implemented in BNN_regression, and HMC_dist.

4.2.2.2 std::vector<float> HMC_base::it (std::vector< float > & *q*)

4.2.2.3 virtual float HMC_base::U (std::vector< float >) [pure virtual]

Implemented in BNN_regression, and HMC_dist.

4.2.3 Member Data Documentation

4.2.3.1 float HMC_base::eps [private]

4.2.3.2 int HMC_base::L [private]

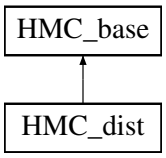
The documentation for this class was generated from the following file:

- include/HMC_base.h

4.3 HMC_dist Class Reference

`#include <HMC_dist.h>`

Inheritance diagram for HMC_dist:



Public Member Functions

- HMC_dist (float e, int l)
- float U (std::vector< float >)
- std::vector< float > delU (std::vector< float > q)

4.3.1 Constructor & Destructor Documentation

4.3.1.1 HMC_dist::HMC_dist (float *e*, int *l*) [inline]

4.3.2 Member Function Documentation

4.3.2.1 std::vector<float> HMC_dist::delU (std::vector< float > *q*) [inline], [virtual]

Implements HMC_base.

4.3.2.2 float HMC_dist::U (std::vector< float >) [inline], [virtual]

Implements HMC_base.

The documentation for this class was generated from the following file:

- include/HMC_dist.h

Chapter 5

File Documentation

5.1 include/BNN_regression.h File Reference

```
#include "HMC_base.h"
#include <iostream>
```

Classes

- class BNN_regression

5.2 include/HMC_base.h File Reference

```
#include <vector>
```

Classes

- class HMC_base

5.3 include/HMC_dist.h File Reference

```
#include "HMC_base.h"
```

Classes

- class HMC_dist