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Contents

| | | |
|----------|--|----------|
| 1 | Class Index | 1 |
| 1.1 | Class List | 1 |
| 2 | Class Documentation | 3 |
| 2.1 | AllocMemdiscard Class Reference | 3 |
| 2.1.1 | Detailed Description | 3 |
| 2.1.2 | Constructor & Destructor Documentation | 3 |
| 2.1.2.1 | AllocMemdiscard | 3 |
| 2.2 | Learner< T > Class Template Reference | 3 |
| 2.2.1 | Constructor & Destructor Documentation | 4 |
| 2.2.1.1 | Learner | 4 |
| 2.2.2 | Member Function Documentation | 4 |
| 2.2.2.1 | init | 4 |
| 2.2.2.2 | learn | 4 |
| 2.2.2.3 | save | 5 |
| 2.2.2.4 | setalpha | 5 |
| 2.2.2.5 | setbound | 5 |
| 2.2.2.6 | setcache | 5 |
| 2.2.2.7 | setfbound | 5 |
| 2.2.2.8 | setlabelcol | 5 |
| 2.2.2.9 | setlambda | 6 |
| 2.2.2.10 | setpenalty | 6 |
| 2.2.2.11 | setpenalty | 6 |
| 2.2.2.12 | setsbound | 6 |
| 2.2.2.13 | setsqcol | 6 |
| 2.3 | MyUtil Class Reference | 7 |
| 2.3.1 | Detailed Description | 7 |
| 2.3.2 | Member Function Documentation | 7 |

| | | |
|---------|--|----|
| 2.3.2.1 | <code>sqread</code> | 7 |
| 2.3.2.2 | <code>sqread</code> | 7 |
| 2.4 | Sequence Class Reference | 8 |
| 2.4.1 | Member Function Documentation | 8 |
| 2.4.1.1 | <code>getRowSize</code> | 8 |
| 2.4.1.2 | <code>getToken</code> | 8 |
| 2.4.1.3 | <code>push</code> | 8 |
| 2.4.1.4 | <code>setAllocSize</code> | 8 |
| 2.4.1.5 | <code>setColSize</code> | 8 |
| 2.4.1.6 | <code>setDelimit</code> | 9 |
| 2.5 | Tagger< T > Class Template Reference | 9 |
| 2.5.1 | Constructor & Destructor Documentation | 9 |
| 2.5.1.1 | Tagger | 9 |
| 2.5.2 | Member Function Documentation | 9 |
| 2.5.2.1 | <code>clear</code> | 9 |
| 2.5.2.2 | <code>output</code> | 9 |
| 2.5.2.3 | <code>read</code> | 10 |
| 2.5.2.4 | <code>setcache</code> | 10 |
| 2.5.2.5 | <code>setsqcol</code> | 10 |
| 2.5.2.6 | <code>tagging</code> | 10 |
| 2.5.2.7 | <code>viterbi</code> | 10 |

Chapter 1

Class Index

1.1 Class List

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

| | |
|------------------------------------|---|
| AllocMemdiscard | 3 |
| Learner< T > | 3 |
| MyUtil | 7 |
| Sequence | 8 |
| Tagger< T > | 9 |

Chapter 2

Class Documentation

2.1 AllocMemdiscard Class Reference

```
#include <allocmd.h>
```

Public Member Functions

- [AllocMemdiscard](#) (size_t)
- void * [alloc](#) (size_t)
- void [reset](#) ()

2.1.1 Detailed Description

written by kei.uchiumi implementated Memory Discard Strategy Copyright (C) 2010- Kei Uchiumi

2.1.2 Constructor & Destructor Documentation

2.1.2.1 AllocMemdiscard::AllocMemdiscard (size_t *heapsize*)

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

- lib/allocmd.h
- lib/allocmd.cpp

2.2 Learner< T > Class Template Reference

Public Member Functions

- [Learner](#) (const char *tmpl, const char *corpus, unsigned int poolsize)
- void [learn](#) (unsigned int iter, unsigned int reg)
- void [save](#) (const char *save)

- bool [init](#) ()
- void [setcache](#) (unsigned int cachesize)
- void [setpenalty](#) (float w, float u, float t)
- void [setpenalty](#) (float bs, float us, float bf, float uf, float t)
- void [setlabelcol](#) (unsigned int labelcol)
- void [setsqcol](#) (unsigned int sqcolsize)
- void [setbound](#) (unsigned int bound)
- void [setfbound](#) (unsigned int fbound)
- void [setsbound](#) (unsigned int sbound)
- void [setlambda](#) (float lambda)
- void [setalpha](#) (float alpha)
- template<>
void [setpenalty](#) (float w, float u, float t)
- template<>
void [setpenalty](#) (float bs, float us, float bf, float uf, float t)
- template<>
void [setbound](#) (unsigned int bound)
- template<>
void [setfbound](#) (unsigned int fbound)
- template<>
void [setsbound](#) (unsigned int sbound)
- template<>
void [setalpha](#) (float alpha)

template<class T> class Learner< T >

2.2.1 Constructor & Destructor Documentation

2.2.1.1 template<class T > Learner< T >::Learner (const char * *tmpl*, const char * *corpus*, unsigned int *poolsize*)

Construct [Learner](#)

Parameters

tmpl template
corpus training-corpus
poolsize poolsize for allocator

2.2.2 Member Function Documentation

2.2.2.1 template<class T > bool Learner< T >::init ()

Initialize

2.2.2.2 template<class T > void Learner< T >::learn (unsigned int *iter*, unsigned int *reg*)

Learn Model Parameters

Parameters

iter iteration

regularize 0:L1-regularization 1:L2-regularization

2.2.2.3 template<class T> void Learner< T >::save (const char * *save*)

Save Model Parameters

Parameters

save modelfile

2.2.2.4 template<class T> void Learner< T >::setalpha (float *alpha*)

Set Alpha parameter for detecting learning-rate eta

Parameters

alpha alpha

2.2.2.5 template<class T> void Learner< T >::setbound (unsigned int *bound*)

Set threshold of cut-off for feature

Parameters

bound NUM

2.2.2.6 template<class T> void Learner< T >::setcache (unsigned int *cache*)

Set cachesize

Parameters

cache cachesize

2.2.2.7 template<class T> void Learner< T >::setfbound (unsigned int *fbound*)

Set threshold of cut-off for token feature

Parameters

bound NUM

2.2.2.8 template<class T> void Learner< T >::setlabelcol (unsigned int *labelcol*)

Set label-col in sequence

Parameters

labelcol labelcol

2.2.2.9 `template<class T> void Learner< T>::setlambda (float lambda)`

Set Lambda parameter for detecting learning-rate eta

Parameters

lambda lambda

2.2.2.10 `template<class T> void Learner< T>::setpenalty (float bs, float us, float bf, float uf, float t)`

Set penalty parameters

Parameters

bs penalty parameter for transition-feature of segment

us penalty parameter for observed-feature of segment

bf penalty parameter for transition-feautre of token

uf penalty parameter for observed-feautre of token

t penalty parameter for gate-function

2.2.2.11 `template<class T> void Learner< T>::setpenalty (float w, float u, float t)`

Set penalty parameters

Parameters

w penalty parameter for observed-feature

u penalty parameter for transition-feautre

t penalty parameter for gate-function

2.2.2.12 `template<class T> void Learner< T>::setsbound (unsigned int sbound)`

Set threshold of cut-off for segment feature

Parameters

sbound NUM

2.2.2.13 `template<class T> void Learner< T>::setsqcol (unsigned int sqcolsize)`

Set colsize of sequence

Parameters

colsize colsize of sequence

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

- src/learner.hpp

2.3 MyUtil Class Reference

```
#include <myutil.h>
```

Static Public Member Functions

- static bool **IsEOS** (const char *str)
- static bool **IsEOS** (std::string &s)
- static void **chomp** (char *str)
- static void **chomp** (std::string &s)
- static unsigned int **getByteUtf8** (const char *p)
- static void **push** (int c, char **s)
- static void **itoalter** (int n, char **s)
- static void **itoa** (int n, char *s)
- static bool **IsCommentOut** (const char *str)
- static void **sqread** (FILE *fp, [Sequence](#) *s, unsigned int bufsize)
- static void **sqread** (std::ifstream &in, [Sequence](#) *s)

2.3.1 Detailed Description

written by kuchiumi util class for folos crf

2.3.2 Member Function Documentation

2.3.2.1 static void MyUtil::sqread (std::ifstream & *in*, [Sequence](#) * *s*) [**inline**, **static**]

read sequence function

Parameters

in ifstream

sq [Sequence](#)

2.3.2.2 static void MyUtil::sqread (FILE * *fp*, [Sequence](#) * *s*, unsigned int *bufsize*) [**inline**, **static**]

read sequence function

Parameters

fp FILE pointer

sq [Sequence](#)

bufsize buffer size

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

- lib/myutil.h

2.4 Sequence Class Reference

Public Member Functions

- int **dump** ()
- int **push** (const char *str)
- int **clear** ()
- unsigned int **getRowSize** ()
- char * **getToken** (int row, int col)
- int **setDelimit** (const char *delimit)
- int **init** ()
- int **setAllocSize** (unsigned int allocsize)
- int **setColSize** (unsigned int colsize)

2.4.1 Member Function Documentation

2.4.1.1 unsigned int Sequence::getRowSize ()

Parameters

[out] *rowsize*

2.4.1.2 char * Sequence::getToken (int row, int col)

Parameters

[in] *row*

[in] *col*

[out] *char**

2.4.1.3 int Sequence::push (const char * str)

Parameters

[in] *str*

2.4.1.4 int Sequence::setAllocSize (unsigned int allocsize)

Parameters

[in] *allocsize*

2.4.1.5 int Sequence::setColSize (unsigned int colsize)

Parameters

[in] *colsize*

2.4.1.6 int Sequence::setDelimit (const char * *delimit*)

Parameters

[in] *delimit*

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

- lib/sequence.h
- lib/sequence.cpp

2.5 Tagger< T > Class Template Reference

Public Member Functions

- [Tagger](#) (const char *tmpl, unsigned int poolsize)
- void [read](#) (const char *model)
- void [tagging](#) (const char *corpus)
- void [viterbi](#) ([Sequence](#) *s, [AllocMemdiscard](#) *cache, std::vector< int > &labels)
- void [output](#) ([Sequence](#) *s, std::vector< int > &labels)
- void [setcache](#) (unsigned int cachesize)
- void [setsqcol](#) (unsigned int sqcolsize)
- void [clear](#) ()
- template<>
void [clear](#) ()

template<class T> class Tagger< T >

2.5.1 Constructor & Destructor Documentation

2.5.1.1 template<class T > Tagger< T >::Tagger (const char * *tmpl*, unsigned int *poolsize*)

Construct [Tagger](#)

Parameters

tmpl template

poolsize poolsize for allocator

2.5.2 Member Function Documentation

2.5.2.1 template<class T > void Tagger< T >::clear ()

Clear model parameter

2.5.2.2 template<class T > void Tagger< T >::output ([Sequence](#) * *s*, std::vector< int > & *labels*)

Output labeled-sequence

Parameters

s sequence
labels vector stored labels

2.5.2.3 template<class T > void Tagger< T >::read (const char * *model*)

Read Modelfile

Parameters

model modelfile

2.5.2.4 template<class T > void Tagger< T >::setcache (unsigned int *cache*size)

Set cachesize

Parameters

cache cachesize

2.5.2.5 template<class T > void Tagger< T >::setsqcol (unsigned int *sqcol*size)

Set colsize of sequence

Parameters

colsize colsize of sequence

2.5.2.6 template<class T > void Tagger< T >::tagging (const char * *corpus*)

Tagging to corpus

Parameters

corpus test-corpus

2.5.2.7 template<class T > void Tagger< T >::viterbi (Sequence * *s*, AllocMemdiscard * *cache*, std::vector< int > & *labels*)

Predict Tags and set to labels

Parameters

s target sequence
cache cache
labels vector to store predicted labels

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

- src/tagger.hpp

Index

AllocMemdiscard, 3
 AllocMemdiscard, 3

clear
 Tagger, 9

getRowSize
 Sequence, 8

getToken
 Sequence, 8

init
 Learner, 4

learn
 Learner, 4

Learner, 3
 init, 4
 learn, 4
 Learner, 4
 save, 5
 setalpha, 5
 setbound, 5
 setcache, 5
 setfbound, 5
 setlabelcol, 5
 setlambda, 5
 setpenalty, 6
 setsbound, 6
 setsqcol, 6

MyUtil, 7
 sread, 7

output
 Tagger, 9

push
 Sequence, 8

read
 Tagger, 10

save
 Learner, 5

Sequence, 8

getRowSize, 8

getToken, 8

push, 8

setAllocSize, 8

setColSize, 8

setDelimit, 8

setAllocSize
 Sequence, 8

setalpha
 Learner, 5

setbound
 Learner, 5

setcache
 Learner, 5
 Tagger, 10

setColSize
 Sequence, 8

setDelimit
 Sequence, 8

setfbound
 Learner, 5

setlabelcol
 Learner, 5

setlambda
 Learner, 5

setpenalty
 Learner, 6

setsbound
 Learner, 6

setsqcol
 Learner, 6
 Tagger, 10

sread
 MyUtil, 7

Tagger, 9
 clear, 9
 output, 9
 read, 10
 setcache, 10
 setsqcol, 10
 Tagger, 9
 tagging, 10
 viterbi, 10

tagging

Tagger, [10](#)

viterbi

Tagger, [10](#)