Package: RcppMeCab (via r-universe)

November 15, 2024

Title 'rcpp' Wrapper for 'mecab' Library

Version 0.0.1.3-3

Author Junhewk Kim [aut, cre], Taku Kudo [aut]

Maintainer Junhewk Kim <junhewk.kim@gmail.com>

Description R package based on 'Rcpp' for 'MeCab': Yet Another
Part-of-Speech and Morphological Analyzer. The purpose of this
package is providing a seamless developing and analyzing
environment for CJK texts. This package utilizes parallel
programming for providing highly efficient text preprocessing
'posParallel()' function. For installation, please refer to
README.md file.

Depends R (>= 3.4.0)

License GPL

Encoding UTF-8

LazyData true

BugReports https://github.com/junhewk/RcppMeCab/issues

RoxygenNote 7.1.1

Language en-US

LinkingTo Rcpp, RcppParallel, BH

Imports Rcpp, RcppParallel

Suggests testthat, spelling

SystemRequirements MeCab 0.996 (or mecab-ko 0.9.2) or higher
(libmecab-dev (deb), mecab-devel (rpm)) GNU make

Config/pak/sysreqs make libmecab-dev

Repository https://junhewk.r-universe.dev

RemoteUrl https://github.com/junhewk/rcppmecab

RemoteRef HEAD

RemoteSha c0a8e95bda0e925a7b2c7b359a169d72651fcc60

Contents

---

pos	*part-of-speech tagger*

Description

`pos` returns part-of-speech (POS) tagged morpheme of the sentence.

Usage

```
pos(
  sentence,
  join = TRUE,
  format = c("list", "data.frame"),
  sys_dic = "",
  user_dic = ""
)
```

Arguments

sentence	A character vector of any length. For analyzing multiple sentences, put them in one character vector.
join	A bool to decide the output format. The default value is TRUE. If FALSE, the function will return morphemes only, and tags put in the attribute. if `format="data.frame"`, then this will be ignored.
format	A data type for the result. The default value is "list". You can set this to "data.frame" to get a result as data frame format.
sys_dic	A location of system MeCab dictionary. The default value is "".
user_dic	A location of user-specific MeCab dictionary. The default value is "".

Details

This is a basic function for MeCab part-of-speech tagger. The function gets a character vector of any length and runs a loop inside C++ to provide faster processing.

You can add a user dictionary to `user_dic`. It should be compiled by `mecab-dict-index`. You can find an explanation about compiling a user dictionary in the https://github.com/junhewk/RcppMeCab.

You can also set a system dictionary especially if you are using multiple dictionaries (for example, using both IPA and Juman dictionary at the same time in Japanese) in `sys_dic`. Using `options(mecabSysDic=)`, you can set your preferred system dictionary to the R terminal.

If you want to get a morpheme only, use `join = False` to put tag names on the attribute. Basically, the function will return a list of character vectors with (morpheme)/(tag) elements.

Value

A string vector of POS tagged morpheme will be returned in conjoined character vector form. Element name of the list are original phrases

Examples

```
## Not run:
sentence <- c(#some UTF-8 texts)
pos(sentence)
pos(sentence, join = FALSE)
pos(sentence, format = "data.frame")
pos(sentence, user_dic = "~/user_dic.dic")
# System dictionary example: in case of using mecab-ipadic-NEologd
pos(sentence, sys_dic = "/usr/local/lib/mecab/dic/mecab-ipadic-neologd/")

## End(Not run)
```

---

posParallel	*parallel version of part-of-speech tagger*

Description

`posParallel` returns part-of-speech (POS) tagged morpheme of the sentence.

Usage

```
posParallel(
  sentence,
  join = TRUE,
  format = c("list", "data.frame"),
  sys_dic = "",
  user_dic = ""
)
```

Arguments

sentence   A character vector of any length. For analyzing multiple sentences, put them in one character vector.

join   A bool to decide the output format. The default value is TRUE. If FALSE, the function will return morphemes only, and tags put in the attribute. if `format="data.frame"`, then this will be ignored.

format   A data type for the result. The default value is "list". You can set this to "data.frame" to get a result as data frame format.

`sys_dic`	A location of system MeCab dictionary. The default value is "".
`user_dic`	A location of user-specific MeCab dictionary. The default value is "".

Details

This is a parallelized version of MeCab part-of-speech tagger. The function gets a character vector of any length and runs a loop inside C++ with Intel TBB to provide faster processing.

Parallelizing over a character vector is not supported by RcppParallel. Thus, this function makes duplicates of the input and the output. Therefore, if your data volume is large, use pos or divide the vector to several sub-vectors.

You can add a user dictionary to `user_dic`. It should be compiled by `mecab-dict-index`. You can find an explanation about compiling a user dictionary in the https://github.com/junhewk/RcppMeCab.

You can also set a system dictionary especially if you are using multiple dictionaries (for example, using both IPA and Juman dictionary at the same time in Japanese) in `sys_dic`. Using `options(mecabSysDic=)`, you can set your preferred system dictionary to the R terminal.

If you want to get a morpheme only, use `join = False` to put tag names on the attribute. Basically, the function will return a list of character vectors with (morpheme)/(tag) elements.

Value

A string vector of POS tagged morpheme will be returned in conjoined character vecter form. Element name of the list are original phrases

Examples

```
## Not run:
sentence <- c(#some UTF-8 texts)
posParallel(sentence)
posParallel(sentence, join = FALSE)
posParallel(sentence, format = "data.frame")
posParallel(sentence, user_dic = "~/user_dic.dic")
# System dictionary example: in case of using mecab-ipadic-NEologd
pos(sentence, sys_dic = "/usr/local/lib/mecab/dic/mecab-ipadic-neologd/")

## End(Not run)
```

RcppMeCab   *RcppMeCab: Rcpp Wrapper for MeCab Library*

Description

R package based on Rcpp for MeCab: Yet Another Part-of-Speech and Morphological Analyzer (http://taku910.github.io/mecab/). The purpose of this package is providing a seamless developing and analyzing environment for CJK texts. This package utilizes parallel programming for providing highly efficient text preprocessing posParallel() function. For installation, please refer to README.md file.

Details

This package utilizes `MeCab` C API and `Rcpp` codes.

Author(s)

Junhewk Kim Taku Kudo

References

- [MeCab](#)
- [Rcpp: Seamless R and C++ Integration](#)
- [Eunjeon project](#)

See Also

Useful links:

- Report bugs at `https://github.com/junhewk/RcppMeCab/issues`

Index