Package ‘RVowpalWabbit’

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Title R Interface to the Vowpal Wabbit
Version 0.0.9
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Description The 'Vowpal Wabbit' project is a fast out-of-core learning system sponsored by Microsoft Research (having started at Yahoo! Research) and written by John Langford along with a number of contributors. This R package does not include the distributed computing implementation of the cluster/ directory of the upstream sources. Use of the software as a network service is also not directly supported as the aim is a simpler direct call from R for validation and comparison.
Depends R (>= 2.12.0)
Imports Rcpp
LinkingTo Rcpp
SystemRequirements The Boost 'program_options' library (http://boost.org) is required.
OS_type unix
License GPL (>= 2)
URL https://github.com/JohnLangford/vowpal_wabbit/
http://dirk.eddelbuettel.com/code/rcpp.html
BugReports https://github.com/eddelbuettel/rvowpalwabbit/issues
NeedsCompilation yes
Repository CRAN
Date/Publication 2017-03-06 08:28:53

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Run the Vowpal Wabbit fast out-of-core learner

**Description**

The `vw` function applies the Vowpal Wabbit on-line learner to a given data set and model. Vowpal Wabbit is a project sponsored by Yahoo! Research and led by John Langford. At present, this package provides a simple yet crude interface.

**Usage**

```r
text <- quote(vw(args, quiet=TRUE))
```

**Arguments**

- `args` A character vector containing the same arguments one would use on the command-line with the standalone `vw` binary.
- `quiet` A boolean switch which, if set, suppresses most output to stdout.

**Details**

Vowpal Wabbit is a very fast on-line machine learning application. Some documentation for it is provided via the upstream wiki referenced below.

**Value**

The `vw` function returns a small `data.frame` with a number of summary statistics. The function returns a character string of a fixed length containing the requested digest of the supplied R object. For MD5, a string of length 32 is returned; for SHA-1, a string of length 40 is returned; for CRC32 a string of length 8.

**Note**

The `RVowpalWabbit` package contains the original test and validation data, models, and output. In order to call the `vw` function with relative path names (as in the Vowpal Wabbit documentation), it is easiest to first change to a directory above all these files as for example via

```r
# change to 'test' directory of package
setwd( system.file("test", package="RVowpalWabbit") )
```

which computes where the package is installed, and then adds the `test` directory to that path before changing to working directory to the resulting path.
Author(s)
Dirk Eddelbuettel <edd@debian.org> for the R interface; John Langford along with Daniel Hsu, Nikos Karampatziakis, Olivier Chapelle, Paul Mineiro, Matt Hoffman, Jake Hofman, Sudarshan Lamkhede, Shubham Chopra, Ariel Faigon, Lihong Li, Gordon Rios, and Alex Strehl for Vowpal Wabbit.

References
https://github.com/JohnLangford/vowpal_wabbit/wiki

Examples

## also see demo(vw) from which this is a subset

library(RVowpalWabbit)

## change to 'test' directory of package
setwd( system.file("test", package="RVowpalWabbit") )

# Test 3: without -d, training only
# {VW} train-sets/0002.dat   -f models/0002.model
test3 <- c("-t", "train-sets/0002.dat",
            "-f", "models/0002.model")
res <- vw(test3)
res
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