Package: discrim (via r-universe)

June 9, 2024

Title Model Wrappers for Discriminant Analysis

Version 1.0.1.9000

Description Bindings for additional classification models for use with the 'parsnip' package. Models include flavors of discriminant analysis, such as linear (Fisher (1936) <doi:10.1111/j.1469-1809.1936.tb02137.x>), regularized (Friedman (1989) <doi:10.1080/01621459.1989.10478752>), and flexible (Hastie, Tibshirani, and Buja (1994) <doi:10.1080/01621459.1994.10476866>), as well as naive Bayes classifiers (Hand and Yu (2007) <doi:10.1111/j.1751-5823.2001.tb00465.x>).

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URL https://github.com/tidymodels/discrim, https://discrim.tidymodels.org/

BugReports https://github.com/tidymodels/discrim/issues

Depends parsnip (>= 0.2.0), R (>= 3.4)

Imports dials, rlang, stats, tibble, withr

Suggests covr, dplyr, earth, ggplot2, klaR, knitr, MASS, mda, mlbench, modeldata, naivebayes, rmarkdown, sda, sparsediscrim (>= 0.3.0), spelling, testthat (>= 3.0.0), xml2

Config/Needs/website tidymodels/tidymodels, tidyverse/tidytemplate

Encoding UTF-8

Language en-US

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Config/testthat/edition 3

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

RemoteUrl https://github.com/tidymodels/discrim

RemoteRef HEAD

RemoteSha 41fdc0b0ceeab618b612fe2525c814cd10ca6061

Contents

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frac_common_cov	*Parameter objects for Regularized Discriminant Models*

Description

discrim_regularized() describes the effect of frac_common_cov() and frac_identity(). smoothness() is an alias for the adjust parameter in stats::density().

Usage

```
frac_common_cov(range = c(0, 1), trans = NULL)

frac_identity(range = c(0, 1), trans = NULL)

smoothness(range = c(0.5, 1.5), trans = NULL)
```

Arguments

range
: A two-element vector holding the *defaults* for the smallest and largest possible values, respectively.

trans
: A trans object from the scales package, such as scales::log10_trans() or scales::reciprocal_trans(). If not provided, the default is used which matches the units used in range. If no transformation, NULL.

Details

These parameters can modulate a RDA model to go between linear and quadratic class boundaries.

Value

A function with classes "quant_param" and "param"

Examples

```
frac_common_cov()
```

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parabolic	*Parabolic class boundary data*

Description

Parabolic class boundary data

Details

These data were simulated. There are two correlated predictors and two classes in the factor outcome.

Value

parabolic   a data frame

Examples

```
data(parabolic)

library(ggplot2)
ggplot(parabolic, aes(x = X1, y = X2, col = class)) +
  geom_point(alpha = .5) +
  theme_bw()
```

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