Package ‘grnn’

February 20, 2015

Title  General regression neural network
Description The program GRNN implements the algorithm proposed by Specht (1991).
URL  http://flow.chasset.net/r-grnn/
Version  0.1.0
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License  AGPL
Collate  'create.R' 'grnn-package.r' 'guess.r' 'kernel.R' 'learn.R'
          'smooth.R'
NeedsCompilation  no
Repository  CRAN
Date/Publication  2013-05-16 17:39:51

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Description

General regression neural network.
Details

The program GRNN implements the algorithm proposed by Specht (1991).

Author(s)

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References


Description

Infers the value of a new observation.

Usage

guess(nn, x)

Arguments

nn A trained and smoothed General regression neural network.
X A vector describing a new observation.

See Also

grnn-package

Examples

n <- 100
set.seed(1)
x <- runif(n, -2, 2)
y0 <- x^3
epsilon <- rnorm(n, 0, .1)
y <- y0 + epsilon
grnn <- learn(data.frame(y,x))
grnn <- smooth(grnn, sigma=0.1)
guess(grnn, -2)
guess(grnn, -1)
guess(grnn, -0.2)
guess(grnn, -0.1)
guess(grnn, 0)
guess(grnn, 0.1)
learn

\begin{verbatim}
  guess(grnn, 0.2)
  guess(grnn, 1)
  guess(grnn, 2)
\end{verbatim}

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**Description**

Create or update a General regression neural network.

**Usage**

```r
learn(set, nn, variable.column = 1)
```

**Arguments**

- **set**: Data frame representing the training set. The first column is used to define the category of each observation (set category.column if it is not the case).
- **nn**: A General regression neural network with or without training.
- **variable.column**: The field number of the variable (1 by default).

**See Also**

- `grnn-package`

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smooth

**Description**

Smooth a General regression neural network.

**Usage**

```r
smooth(nn, sigma)
```

**Arguments**

- **nn**: A trained General regression neural network.
- **sigma**: A scalar.

**See Also**

- `grnn-package`
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