Package 'Sojourn.Data'

October 12, 2022

Type Package

Title Supporting Objects for Sojourn Accelerometer Methods

Version 0.3.0

Depends R (>= 3.1.0)

Description Stores objects (e.g. neural networks) that are needed for using Sojourn accelerometer methods. For more information, see Lyden K, Keadle S, Staudenmayer J, & Freedson P (2014) <doi:10.1249/MSS.0b013e3182a42a2d>, Ellingson LD, Schwabacher IJ, Kim Y, Welk GJ, & Cook DB (2016) <doi:10.1249/MSS.0000000000000915>, and Hibbing PR, Ellingson LD, Dixon PM, & Welk GJ (2018) <doi:10.1249/MSS.0000000000001486>.

License GPL-3

Encoding UTF-8

LazyData true

LazyDataCompression xz

RoxygenNote 7.1.1

URL https://github.com/paulhibbing/Sojourn.Data

BugReports https://github.com/paulhibbing/Sojourn.Data/issues

Suggests nnet

NeedsCompilation no

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R topics documented:

`ALL.reg.nn` *Uniaxial neural network for use in original triaxial Sojourn method*

Description

Uniaxial neural network for use in original triaxial Sojourn method

Usage

```
ALL.reg.nn
```

Format

From print(ALL.reg.nn):

a 6-25-1 network with 207 weights inputs: X10. X25. X50. X75. X90. acf output(s): oxy.METS.calculated options were - skip-layer connections linear output units

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`cent` *Centering coefficients for uniaxial nnetinputs*

Description

Centering coefficients for uniaxial nnetinputs

Usage

```
cent
```

Format

A named numeric vector

cent.1 *Centering coefficients for triaxial nnetinputs*

Description

Centering coefficients for triaxial nnetinputs

Usage

```
cent.1
```

Format

A named numeric vector

class.nnn.6 *Triaxial neural network for original Sojourn method*

Description

Triaxial neural network for original Sojourn method

Usage

```
class.nnn.6
```

Format

From print(class.nnn.6):

a 22-25-4 network with 767 weights inputs: X50. X75. X90. acf X10.2 X25.2 X50.2 X75.2 X90.2 acf.2 X25.3 X50.3 X75.3 X90.3 acf.3 X10.vm X25.vm X50.vm X75.vm X90.vm acf.vm inact.durations output(s): train.6$act.type options were - skip-layer connections softmax modelling decay=0.03

`reg.nn` *Uniaxial neural network for use in the original uniaxial Sojourn method*

Description

Uniaxial neural network for use in the original uniaxial Sojourn method

Usage

```
reg.nn
```

Format

From print(reg.nn): a 6-25-1 network with 207 weights inputs: X10. X25. X50. X75. X90. acf output(s): oxy.METS.calculated options were - skip-layer connections linear output units

`scal` *Scaling coefficients for uniaxial nnetinputs*

Description

Scaling coefficients for uniaxial nnetinputs

Usage

```
scal
```

Format

numeric vector of size 6

`scal.1` *Scaling coefficients for triaxial nnetinputs*

Description

Scaling coefficients for triaxial nnetinputs

Usage

```
scal.1
```

Format

numeric vector of size 25

Sojourn.Data — *Sojourn.Data: Models for Sojourn Accelerometer Methods*

Description

Sojourn methods rely on large objects, which take up too much space in an ordinary package. Thus, the objects are stored in this data-only package, meant to complement the Sojourn package.

youth_grids — *Data frame containing grid values for the youth Sojourn method*

Description

Data frame containing grid values for the youth Sojourn method

Usage

```
youth_grids
```

Format

data frame with 4 rows and 14 columns

youth_hipCounts — *Neural network for youth Sojourn method, taking activity count data from hip-worn monitors*

Description

Neural network for youth Sojourn method, taking activity count data from hip-worn monitors

Usage

```
youth_hipCounts
```

Format

From print(youth_hipCounts):

a 9-15-3 network with 198 weights inputs: Age SexM BMI VM_Q10 VM_Q25 VM_Q50 VM_Q75 VM_Q90 VM_lag1 output(s): .outcome options were - softmax modelling

`youth_hipRaw` *Neural network for youth Sojourn method, taking raw accelerometer data from hip-worn monitors*

Description

Neural network for youth Sojourn method, taking raw accelerometer data from hip-worn monitors

Usage

```
youth_hipRaw
```

Format

From print(youth_hipRaw):

a 9-20-3 network with 263 weights inputs: Age SexM BMI ENMO_Q10 ENMO_Q25 ENMO_Q50 ENMO_Q75 ENMO_Q90 ENMO_lag1 output(s): .outcome options were - softmax modelling decay=0.1

`youth_wristCounts` *Neural network for youth Sojourn method, taking activity count data from non-dominant-wrist-worn monitors*

Description

Neural network for youth Sojourn method, taking activity count data from non-dominant-wrist-worn monitors

Usage

```
youth_wristCounts
```

Format

From print(youth_wristCounts):

a 9-15-3 network with 198 weights inputs: Age SexM BMI VM_Q10 VM_Q25 VM_Q50 VM_Q75 VM_Q90 VM_lag1 output(s): .outcome options were - softmax modelling decay=0.1

youth_wristRaw *Neural network for youth Sojourn method, taking raw accelerometer data from non-dominant-wrist-worn monitors*

Description

Neural network for youth Sojourn method, taking raw accelerometer data from non-dominant-wrist-worn monitors

Usage

```
youth_wristRaw
```

Format

From print(youth_wristRaw):

a 9-15-3 network with 198 weights inputs: Age SexM BMI ENMO_Q10 ENMO_Q25 ENMO_Q50 ENMO_Q75 ENMO_Q90 ENMO_lag1 output(s): .outcome options were - softmax modelling decay=0.1

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