Package 'TrajectoryMarkovAnalysis'

May 11, 2022

Type Package

Title This package creates Markov models for patient-orientated trajectories.

Version 1.0

Date 2022-01-18

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Description R-package TrajectoryMarkovAnalysis specializes on modelling patient trajectories using Markov chains. The package supports discrete and continuous time Markov models, Kaplan-Meier plots, Markov trees and synthetic data generation. The package is based on OMOP CDM.

License GPL (>= 2)

Imports Rcpp (>= 1.0.7),
sunburstR,
htmlwidgets,
shiny,
shinydashboard,
shinycssloaders,
DT,
matrixcalc,
dplyr,
plyr,
tidyr,
shinyMatrix,
msm,
stringr,
survival,
survminer,
ggplot2,
ggpubr,
ggraph,
igraph,
stats,
formattable,
utils

Remotes OHDSI/DatabaseConnector,
OHDSI/ParallelLogger,
OHDSI/SqlRender

Suggests testthat

LinkingTo Rcpp

RoxygenNote 7.1.1

R topics documented:

`TrajectoryMarkovAnalysis-package`
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Author(s)

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References

This optional section can contain literature or other references for background information.

See Also

HealthInformaticsUT/Cohort2Trajectory, HealthInformaticsUT/TrajectoryViz

Examples

```
## Not run:
   ## Optional simple examples of the most important functions
   ## These can be in \dontrun{} and \donttest{} blocks.

## End(Not run)
```

`runGUI` *This function initiates the connection with database and starts Shiny application*

Description

This function initiates the connection with database and starts Shiny application

Usage

```
runGUI(
  connection,
  connectionDetails,
  pathToDriver = "./Drivers",
  dbms = "postgresql",
  cdmSchema = "ohdsi_cdm",
  cdmTmpSchema = "ohdsi_temp",
  cdmResultsSchema = "ohdsi_results",
  studyName = "MarkovAnalysis",
  pathToResults = NULL
)
```

Arguments

`pathToDriver`	Path to a folder containing the JDBC driver JAR files. See downloadJdbcDrivers for instructions on how to download the relevant drivers.
`dbms`	The type of DBMS running on the server. Valid values are: 'oracle','postgresql','redshift','sql server','pdw', 'netezza','bigquery','sqlite', 'sqlite extended','spark'
`cdmSchema`	Schema which contains the OHDSI Common Data Model.
`cdmTmpSchema`	Schema for temporary tables
`cdmResultsSchema`	Schema which has the information about the cohorts created in Atlas
`pathToResults`	Path to target directory where results will be saved

`visualisePatient` *Visualize patient's trajectory inbetween the cohorts*

Description

This function outputs a patient oriented plot

Usage

```
visualisePatient(
  patientData,
  patientId,
  trajectoryStopDays = 183,
  theme = 1,
  connection,
  dbms,
  cdmTmpSchema = "ohdsi_temp",
  feature = 0
)
```

Arguments

patientData	A Data.frame object which is resulting from
patientId	Patient's id
trajectoryStopDays	Nr of days which will determine the possible split between trajectories
theme	Plot's theme indicator
connection	Active connection
dbms	Database management system's dialect
cdmTmpSchema	Temp tables' schema

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