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Título: JRStat: Una plataforma de código abierto para análisis estadístico de datos usando interfaces gráficas en R.

Title: JRStat: An open source platform for implementing statistical analysis using Graphical User Interfaces in R

Abstract: R is a free software for statistical analysis with a command-line interface, thus to take advantage of its potential, users require programming knowledge. Several Graphical User Interfaces (GUI) have been developed based in different concepts, scopes and technologies that make the interaction between the user and R more friendly and intuitive. JRStat is an open source platform for statistical analysis that combines the computing power of R with the ease to use of GUI. This platform uses the R software from an application written in the Java programming language which employs the rJava, JavaGD and JFreeChart libraries for interacting with R and for graphing. The JRStat software has several tools that make agreeable the interaction of the user with R, as menus for data analysis (e.g. hypothesis testing, linear regression, generalized linear model, multivariate analysis, non-parametric statistics, etc.), graphics module, object explorer, code editor and the interactive console which displays the R code executed through menus and the results. The JRStat software is cross-platform and is available for execution on modern computing platforms (Windows, macOS and Linux). It should be noted that the proposed software is also extensible, since it allows advanced users to automate and implement routines in R code, creating new modules based on XML files (eXtensible Markup Language). In order to show the capacity of JRStat as a platform for the implementation of algorithms in R code through the use of GUI, we show how to implement an option to analyze data using random forest, showing the benefit of using JRStat.
Keywords: GUI, platform, XML, R.

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