

Introduction to R

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What is R?

- R is a programming language and software environment for statistical analysis, graphics representation and reporting.
- R was created by Ross Ihaka and Robert Gentleman at the University of Auckland, New Zealand, and is currently developed by the R Development Core Team.
- R is freely available under the GNU General Public License, and pre-compiled binary versions are provided for various operating systems like Linux, Windows and Mac.
- This programming language was named R, based on the first letter of first name of the two R authors (Robert Gentleman and Ross Ihaka), and partly a play on the name of the Bell Labs Language S.

What is R?

- The core of R is an interpreted computer language which allows branching and looping as well as modular programming using functions.
- R allows integration with the procedures written in the C, C++, .Net, Python or FORTRAN languages for efficiency.
- R is free software distributed under a GNU-style copy left, and an official part of the GNU project called GNU S.

Evolution of R

- R was initially written by Ross Ihaka and Robert Gentleman at the Department of Statistics of the University of Auckland in Auckland, New Zealand. R made its first appearance in 1993.
 - A large group of individuals has contributed to R by sending code and bug reports.
 - Since mid-1997 there has been a core group (the "R Core Team") who can modify the R source code archive.

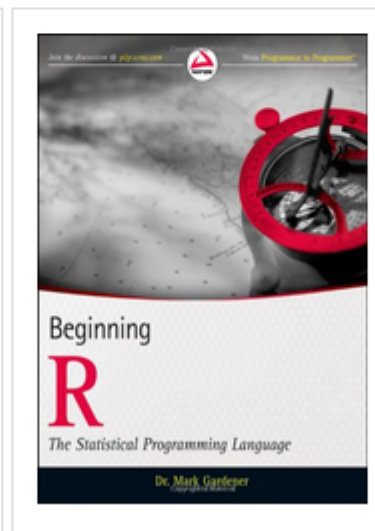
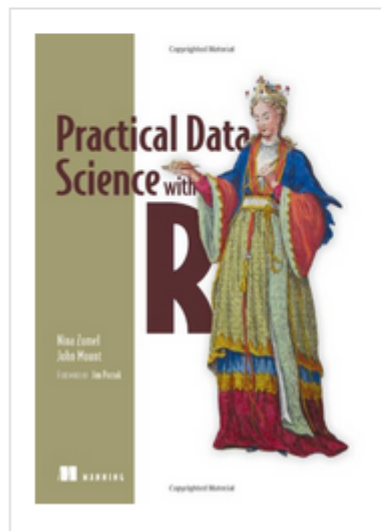
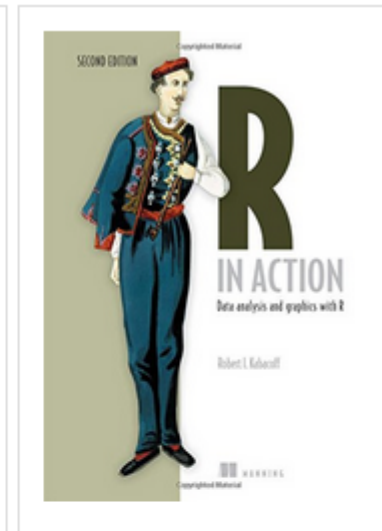
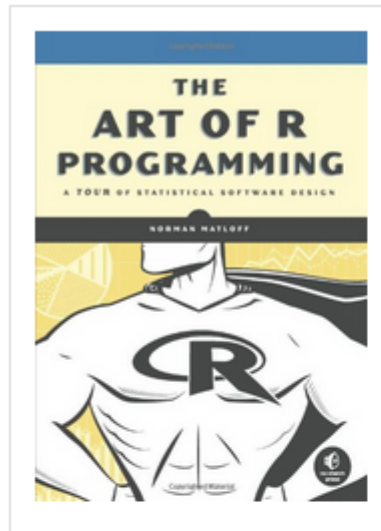
Features of R

- R is a well-developed, simple and effective programming language which includes conditionals, loops, user defined recursive functions and input and output facilities.
- R has an effective data handling and storage facility,
- R provides a suite of operators for calculations on arrays, lists, vectors and matrices.
- R provides a large, coherent and integrated collection of tools for data analysis.
- R provides graphical facilities for data analysis and display either directly at the computer or printing at the papers.

Hence Concluded...

- As a conclusion, R is world's most widely used statistics programming language.
- It's the # 1 choice of data scientists and supported by a vibrant and talented community of contributors.
- R is taught in universities and deployed in mission critical business applications.

Useful resources



Thank you

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