R

R

®,

2018-09-18

Contents

Chapter 1

®Studio Shiny [1]

- — ®Studio
- — ®Studio

[2] 2005 Excel 2008 **Scicom (MSC) Bhd** R R

R **®Studio** DigitalOcean.com

Successful Algorithmic Trading R Python C++ **Michael Halls**[3]

`bookdown::gitbook` bookdown: Authoring Books and Technical Documents with R Markdown

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[1] ®Studio Shiny
[2] ® , ENG LIAN HU
[3] Struggling To Make Profitable Algo Trading Strategies?

Chapter 2

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 2. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 3.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 2.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2018) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

2.1 R RStudio

2.2 Shiny

- How to sample from multidimensional distributions using Gibbs sampling?
-

2.3

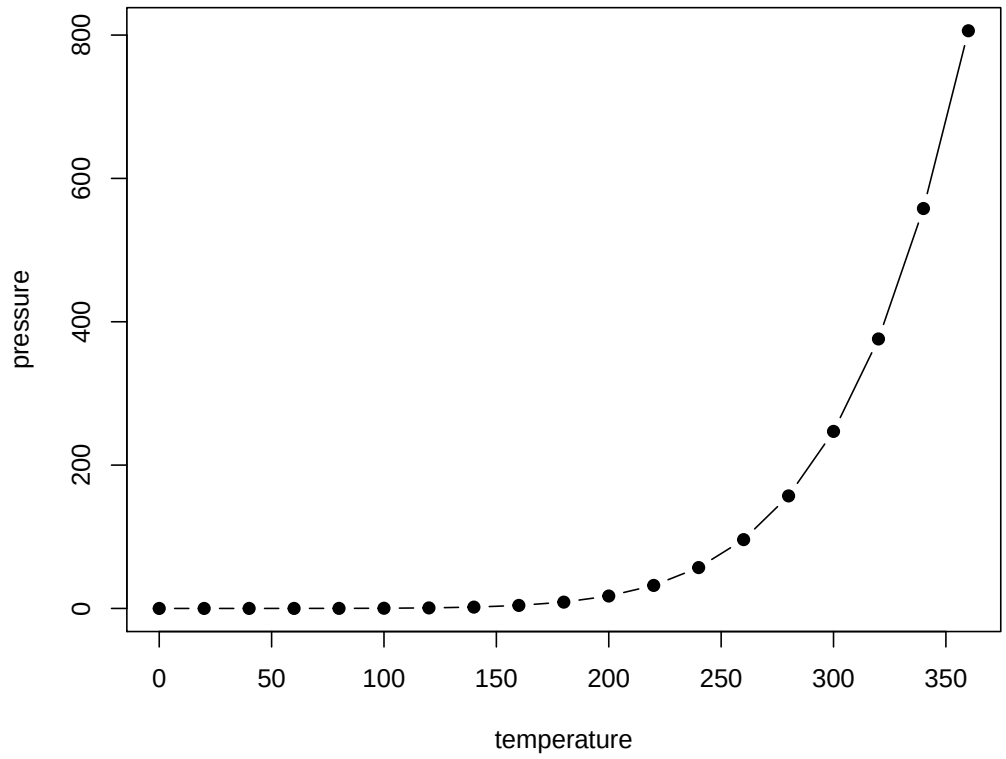

Figure 2.1: Here is a nice figure!

Table 2.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

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- A Future for R: A Comprehensive Overview

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- An introduction to Monte Carlo Tree Search

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- The `fst` package
- `splitstackshape`
- Using Sparse Matrices in R
- Fast data loading from files to R
- A guide to GPU-accelerated ship recognition in satellite imagery using Keras and R (part I)
- A guide to GPU-accelerated ships recognition in satellite imagery using Keras and R (part II)

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- Efficient R programming
- Advanced R

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9.1.1

Real world application example MAB algorithms have multiple practical implementations in the real world, for example, price engine optimization or finding the best online campaign. Let's focus on the first one and see how we can implement this in R. Imagine you are selling your products online and want to introduce a new one, but are not sure how to price it. You came up with 4 price candidates based on our expert knowledge and experience: 99 100, 115$ and $120 Now you want to test how those prices will perform and which to choose eventually During first day of your experiment$ 4 was tested and 368 bought the product, for the rest of the prices we have the following outcome: - 100$ 4060 visits and 355 purchases, - 115$ 4011 visits and 373 purchases, - 120$ 4007 visits and 230 purchases.

Source : An introduction to Monte Carlo Tree Search

9.1.2

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9.2.1

Real world application example MAB algorithms have multiple practical implementations in the real world, for example, price engine optimization or finding the best online campaign. Let's focus on the first one and see how we can implement this in R. Imagine you are selling your products online and want to introduce a new one, but are not sure how to price it. You came up with 4 price candidates based on our expert knowledge and experience: 99 100, 115$ and $120 Now you want to test how those prices will perform and which to choose eventually During first day of your experiment$ 4 was tested and 368 bought the product, for the rest of the prices we have the following outcome: - 100$ 4060 visits and 355 purchases, - 115$ 4011 visits and 373 purchases, - 120$ 4007 visits and 230 purchases.

Source : An introduction to Monte Carlo Tree Search

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- How we built a Shiny App for 700 users?

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1. Calculating the house edge of a slot machine, with R[1]
2. Russians Engineer a Brilliant Slot Machine Cheat-and Casinos Have No Fix
3. Data Science: Theories, Models, Algorithms, and Analytics
4. Job Application - Quantitative Analyst
5. Real Time FXCM
6. Rmodel
7. Odds Modelling and Testing Inefficiency of Sports Bookmakers
8. Financial Engineering Analytics: A Practice Manual Using R

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[1]DON'T DRINK AND GAMBLE:Analyzing and Simulating a Slot Machine - So You Don't Have To and Predicting a Slot Machine's PRNG

Bibliography

Xie, Y. (2015). *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2018). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.7.