R cookbook for the casual dabbler (2nd edition)

Charles Coverdale

2025-02-11

Introduction

G'day and welcome to R cookbook for the casual dabbler (2nd edition).

RCCD 1st edition was originally published in 2020 as a side project during the COVID-19 pandemic in Melbourne.

As I wrote in the midst of lockdown:

I use R a lot for work and for side projects. Over the years I've collated a bunch of useful scripts, from macroeconomic analysis to quick hacks for making map legends format properly.

Historically my code has been stored in random Rpubs documents, medium articles, and a bunch of .Rmd files on my hardrive. Occasionally I feel like doing things properly - and upload code to a repository on github.

It doesn't take a genius to realize this isn't a very sustainable solution - and it also isn't very useful for sharing code with others. It turns out 2-years of lockdown in Melbourne was enough incentive to sit down and collate my best and most useful code into a single place. In the spirit of open source, a book seemed like the most logical format. The following is a very rough book written in **markdown** - R's very own publishing language.

RCCD1e had surprisingly good (and long-lasting reviews). Alas, five-years on, a lot has changed - in both the R community, and the world more broadly. As such, RCCD2e includes significant revisions. The most major of these is a restructure to make the chapters flow more logically. The Australian specific chapters have also been grouped together (e.g. election data).

Usage

In each chapter I've written up the background, methodology and code for a separate piece of analysis.

2 INTRODUCTION

Most of this code will not be extraordinary to the seasoned R aficionado. However I find that in classic Pareto style $\sim\!20\%$ of my code contributes to the **vast** majority of my work output. Having this 20% on hand will hopefully be useful to both myself and others.

Additional resources

The R community is continually writing new packages and tools. Many of these are covered extensively in various free books available on the bookdown.org website.

The rise of LLM's over the past 2-years has also made it significantly easier to find, refine, and expand on R code. I recommend using them as a first point of call.

Limitations

If you find a bug (along with spelling errors etc) please email me at charlesf-coverdale@gmail.com with the subject line 'RCCD2e'.

About the author

Charles Coverdale is an economist based in Melbourne, Australia. He is passionate about economics, climate science, and building talented teams. You can get in touch with Charles on twitter to hear more about his current projects.

Making maps beautiful

Charts

6 CHARTS

Basic modelling

Hypothesis testing

Forecasting

12 FORECASTING

Web scraping

Text mining

16 TEXT MINING

Geocoding

18 GEOCODING

Drivetime analysis

Raster data

ABS economic indicators

22 RASTER DATA

Australian election data

Bayesian for the common man