

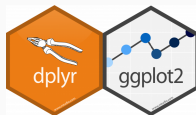
How to write an R package and publish it on GitHub

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What is R package?

- Collection of code, data, documentation developed by R community
- Addresses particular problem with specialised statistical technique, graphical device, etc.
- Core set of packages come with base R
- > 15,000 Additional packages available from CRAN, Bioconductor, Omegahat, GitHub, etc.
- Popular R packages
 - dplyr
 - ggplot2



What is GitHub?

- Website that hosts software development and version control using Git
- Free basic services



Why write R package?

- For yourself
- For others
 - Increasingly, (bio)statistical journals ask for R package development of novel method

Why publish package on GitHub?

- Reproducibility
- Accessibility
- Collaboration
- Back-up method

What do you need to write R package?

- R Studio
- devtools package
- GitHub account



Let's begin!

Major steps

1. Create new repo in GitHub
 - i) Copy URL
2. Open R Studio
 - i) New Project → Version Control → Git → Enter info → Create Project
 - ii) Install devtools
 - iii) Build package
3. Pull + Commit + Push
4. Use/share package with `install_github()`!