



# Building Packages

## Some things that I have found useful

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- An extensive resource is:  
<https://cran.r-project.org/doc/manuals/r-release/R-exts.html>
  - Which tells you all you need to know about building R packages
- I learnt from the resources provided by Matt Nunes:  
<http://www.maths.lancs.ac.uk/~nunes/computerstuff/Rhelp/Rpackages.html>

# So why build R packages?



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R packages allow you to

- Share code, your work/methods,
- Provide an easy way to reproduce your results,
- Provide a consist way to document code,
- Keep code developed to solve a specific problem *all in one place*.

# Typical package layout



A typical R package layout is,

- my\_package/
  - R/
  - data/
  - man/
  - inst/
  - DESCRIPTION
  - NAMESPACE



- `R/`: Holds all of the R code for the package
- `data/`: Place for any data distributed with the package
- `man/`: Location for all of the help files
- `inst/`: Any other code can be put here. Everything in `inst/` get moved the package install directory after the package is installed.
- `DESCRIPTION`: (file) Details about package author, name, package itself, system requirements and version.
- `NAMESPACE`: (file) Details on functions required from other packages and tells which of the functions in your package to make available to the user.



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Hastie, T., Tibshirani, R., and Friedman, J. (2009). *The Elements of Statistical Learning*. Springer Series in Statistics. Springer, second edition.



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