```
template has \small font embedded
!pandoc % -f markdown --template ~/dotfiles/proposed_template.latex -V geometry:margin=0.4in --toc-depth=4 -V toc-title="Reading" -o out.p
```

\href{url here}{text here}

Contents

As of September 26, 2022

```
Use \href{url}{text}
```

BookClub

- Janssens, DS at Command Line: https://www.datascienceatthecommandline.com/2e/
- Hadley, https://mastering-shiny.org/
- R, javascript + shiny https://book.javascript-for-r.com/
- HTTP Testing (book) https://books.ropensci.org/http-testing/

R - always learn something new:

- Burns, R Inferno (not intro book)
- Peng, https://bookdown.org/rdpeng/rprogdatascience/ * Peng, https://bookdown.org/rdpeng/RProgDA/
- Hadley, https://r4ds.had.co.nz/index.html
- Jennybc (book) wtf git
- Gillespie, Lovelace (2016) https://bookdown.org/csgillespie/efficientR/
- Matloff: Art of R Programming (2011)
- de Jong, Intro to Data Cleaning https://cran.r-project.org/doc/contrib/de_Jonge+van_der_Loo-Introduction_to_data_cleaning_with_R.pdf
- Grolemund, 2014 https://rstudio-education.github.io/hopr/

R - Documentation (can beat searching !)

- Just Read the docs! https://rdrr.io/r/

- official R CRAN: https://cran.r-project.org/manuals.html

    - R intro: https://cran.r-project.org/doc/manuals/r-release/R-intro.html
    - R Lang: https://cran.r-project.org/doc/manuals/r-release/R-lang.html

- design.tidyverse.org
- Just Read the docs! https://rdrr.io/r/

R - graphics (base:: is main package)

- `https://rdrr.io/r/graphics/par.html`

- `R intro          -   Ch 12:  https://cran.r-project.org/doc/manuals/r-release/R-intro.html#Graphics`

- `R internals - Ch 6 graphics (lower level)`

- `base Idiot's guide  https://rstudio-pubs-static.s3.amazonaws.com/7953_4e3efd5b9415444ca065b1167862c349.html`

Basic Statistics

More Intuitive/Explanatory:

- [Rossman, know all the basics? confident?] (https://askgoodquestions.blog/)
- Przemyslaw Biecek and Tomasz Burzykowski | different ideas | Ch1, 2 Explanatory Model Analysis | https://ema.drwhy.ai/
- ML Berkeley: https://ml.berkeley.edu/blog/posts/crash-course/part-1/
- Goodfellow et al: https://www.deeplearningbook.org/ ideas
- Guo: Creative site and book: https://seeing-theory.brown.edu/#firstPage
- navarro (learn statistics with r) review lm() and geometric r^2, Ch15, 16
- navarro 2019 (learn statistics with r) study output of lm() * Huntington https://www.theeffectbook.net/index.html (intuition?)

Solid, basic stats intros

- PSU Course begin with 414 | | no R * https://online.stat.psu.edu/stat414/ * https://online.stat.psu.edu/stat462/ * https://online.stat.psu.edu/stat415/
- AMS Basic, good intro CLT (but not t)
- Dekking, et al Modern Introduction to Probability & Statistics (2005), no R. https://cis.temple.edu/~latecki/Courses/CIS2033-Spring13/Modern_intro_probability_statistics_Dekking05.pdf
- Faraday, PRAR: Practical Regression, Anova, linear algebra (mature approach)
- Frey, Bruce "Statistical Hacks"
- [Dalpiaz, David, Univ of IL] (https://daviddalpiaz.github.io/appliedstats/)
- Lindelov: Concise R examples of common stat tests. * Lavine, Statistical Thought: https://people.math.umass.edu/~lavine/Book/book.pdf
- Matloff (Prob book) * http://heather.cs.ucdavis.edu/~matloff/132/PLN/probstatbook/ProbStatBook.pdf * (via pdflatex) https://github.com/matloff/p Good, maybe too good and skips a few basics?
- Siegrist CLT, stats, linear alg | aka randomservices.org | ** best book for introducing Math

- Nahim, Dueling Idiots, harder but real world stats/prob problems (pins falling on surfaces)

R and Special Topics

- Data Science at Command Line (book) https://datascienceatthecommandline.com/2e/chapter-2-getting-started.html
    - videos: https://www.youtube.com/c/R4DSOnlineLearningCommunity

Blogs

- https://towardsdatascience.com
- R-Blogger - https://rweekly.org/{rweekly.org} - https://www.rstudio.com/blog/software-development-resources-for-data-scientists/ - milospopovic

R, the Language: Functional, Standard and Non- Evaluation, Environments, Call Stacks:

- Chambers (2008) "Statistics & Computing" (much coverage of R internals) https://files.slack.com/files-pri/T6UC1DKJQ-F016BP8QPMG/download/john-chambers-software-for-data-analysis-programming-with-r.pdf?origin_team=T6UC1DKJQ
- Gaslam, Brodie - blog - several good posts * NSE: https://www.brodieg.com/2020/05/05/on-nse/ * HP Calculator & Reverse Polish! https://www.brodieg.com/2019/01/11/reverse-polish-notation-parsing-in-r/ * Side Effects, Macros: https://www.brodieg.com/2019/10/30/visualizing-algorithms/
- Gupta, Suraj - How R Finds objects: https://blog.obeautifulcode.com/R/How-R-Searches-And-Finds-Stuff/
- Rnews - Lumley, Macros in R: https://www.r-project.org/doc/Rnews/Rnews_2001-3.pdf
- Rnews - 2001-2008 has lot of good articles
- rlist use functional ideas with lists: https://renkun-ken.github.io/rlist/
- tutorial for rlist: https://renkun-ken.github.io/rlist-tutorial/
- Gatto: https://github.com/lgatto/TeachingMaterial/blob/master/_R-functional-programming/functional-programming.pdf

Haskell

- fairly gentle Haskell intro: https://www.cantab.net/users/antoni.diller/haskell/units/unit02.html
- Haskell book: http://book.realworldhaskell.org/read/

Other book stats/R books:

- Hannay (=rbassett) read, (avoid pkgs ch 11, 12) | https://faculty.nps.edu/rbassett/_book/

- Ismay modern dive (2020)

- Kaplan (2017) ch 6.5 https://dtkaplan.github.io/SM2-bookdown/ (wordy, but exposes nuances)

- Lane se(b_hat)

- Matloff(2020) book

- Mcelreath (videos)

- PENG | art of ... (2017) ch 6.5 (https://bookdown.org/rdpeng/artofdatascience/) | r4ds (2019) ch 9.5

- mosaic ch 5.6, ch 24

More advanced regession/modeling books

- Shalizi: excellent:
- (2019) http://www.stat.cmu.edu/~cshalizi/TALR/ -deeper/more explanatory. By Ch 11, use of gradient f, matrix derviatives . . . .
- Shalizi http://www.stat.cmu.edu/~cshalizi/ADAfaEPoV/ADAfaEPoV.pdf

- http://www.stat.cmu.edu/~cshalizi/mreg/15/
- Davidson (Econometric) - Ch 1, 2
- **ISLRv2:** (book) https://web.stanford.edu/~hastie/ISLRv2_website.pdf - videos: https://www.youtube.com/c/R4DSOnlineLearningCommunity
- MATLOFF (1st book) | ch3 - lot of useful prproperties of x,y | ch 7 - affine transformations
- Efron, Hastie "Computer Age Statistical Inference" (advanced, but chapter intros put techniques into perspective), no R.
- Kuhn (2019): https://bookdown.org/max/FES/
- RAFAEL dsbook - ch 17.4, ch 18.3.4
- **Roback/Legler Beyond Multiple Linear Regression: (2021)_** https://bookdown.org/roback/bookdown-BeyondMLR/ (Replaces BYSH) introduces likelihood; ch6 - logistic worked problem
- Siegrist (aka random services.org) * random| (3)expected value 1..11 and |(5) random samples 1-8 (t-dist)
- Taubes, linear alg, statistics, http://people.math.harvard.edu/~knill/teaching/math19b_2011/handouts/chapters1-19.pdf Biology? math? probability? Think this is really an ideas book; not as easy as may appear.

Algorithms & ML

- Berkeley, excellent glossary: https://www.stat.berkeley.edu/~stark/SticiGui/Text/gloss.htm
- Berkeley CRASH
- Chollet, Deep Learning for R (not online, no pdf)
- Compeau:
  - great ideas book! http://compeau.cbd.cmu.edu/
  - http://compeau.cbd.cmu.edu/programming-for-lovers/ cmu - ch 8, 9 esp collinear.

- Boehmke Hands on ML | https://bradleyboehmke.github.io/HOML/ Ch 4,5
- Deisenroth, Faiesel et al | Math4ML *book | linear alg book, regression, 2nd level
- Gagolewski Lightweight ML with R https://lmlcr.gagolewski.com/
- Higgens "Practical R Info?"
- Huntington "The Effect Book"
- mcelreath: https://github.com/rmcelreath/stat_rethinking_2022 (videos)
- Molnar, "Interpretable ML"
- SciLearn
- Thomas, Math for ML . . . good lin alg, but quickly gets advanced. https://gwthomas.github.io/docs/math4ml.pdf
- mcelreath: https://github.com/rmcelreath/stat_rethinking_2022 (videos)
- https://www.tmwr.org/
- UCLA: Mixed Models - intro: https://stats.oarc.ucla.edu/other/mult-pkg/introduction-to-linear-mixed-models/
- Varma: Deep Learning https://srdas.github.io/DLBook/

Bayes

- Arbital, wiki-like
- Barber, David: Bayesian Reasoning & ML (examples): Barber
- Clyde, Mine et al Intro To Bayesian Thinking (R,intuitive, online only)
- Downey, Allen 2012 pdf, clear intutive, but python)
- Davidson-Pilon Bayesian for Hackers python, but ideas seem well presented.
- Dekking Dekking Modern Intro
- Gimenez: Easy Stats (examples)
- Kurz: Statistial Rethinking reCoded (Bayesian) https://bookdown.org/content/4857/#how-to-use-and-understand-this-project (R, meant as supplement to McElreath)
- Johnson, Ott et al: BayesRules !
- Lavine (tutorial) https://people.math.umass.edu/~lavine/whatisbayes.pdf
-
- McElreath: book, videos Statistical Rethinking info
- paulvanderlake (many R resources) 2012 ThinkBayes paulvanderlake
- Taubes, Lectures 1-19 Lectures 1-19

2nd Bayes books | Advanced or Interesting Ideas

- Aaronson, Scott: https://www.scottaaronson.com/qclec.pdf Information Theory: CS, Quantum, Bayesian, linear algebra, Probability
- Cunningham, Scott: Mixtape: Causal Inference mixtape
- Hunington-Klein The Effect Book wordy Effect Book
- Gelman: DBA3 Gelman DBA 3

Shiny

- R, javascript + shiny https://book.javascript-for-r.com/
- Hadley, https://mastering-shiny.org/
- https://engineering-shiny.org/
- HTTP Testing (book) https://books.ropensci.org/http-testing/

Linear Algebra (as mathematics)

- Beezer Linear Algebra (easier?)
- Herve Adbi | lin alg| no R, no stat, starts simple but gets to decomposition.
- Strang, Linear Algebra (classic)
- Artin, Michael "Algebra" - readable ?
- Friendly - R Pkg linear algebra
- Kazan | normal equations

Intro to Linear Alg & Models,

- Kuiper, Shonda: simple, clear: video: https://www.youtube.com/watch?v=jQkK0XMrAdM
- Race, Shaina gentle intro to lin alg:, https://shainarace.github.io/LinearAlgebra/index.html
- Thomas, Garrett, Math for ML, Berkeley https://gwthomas.github.io/docs/math4ml.pdf
- Bendixcarstensen.com, with R & matrix models (practical; try not use api pkg) http://www.bendixcarstensen.com/APC/linalg-notes-BxC.pdf
- Rafael genomics - Chapter 4 matrix

Latex (.tex, latex, not knitr, markdown, pandoc)

- https://learnbyexample.github.io/customizing-pandoc/
- Not So Short Introduction
- Latex: Latex in 24 hours (iPad)
- https://mirrors.rit.edu/CTAN/info/beginlatex/html/intro.html#intro
- wikibooks: https://en.wikibooks.org/wiki/LaTeX/Document_Structure
- http://ctan.imsc.res.in/info/first-latex-doc/first-latex-doc.pdf
- https://texfaq.org/FAQ-man-latex
- LuaTex Manual: http://www.pragma-ade.com/general/manuals/luatex.pdf
- LuaTex Background Overleaf: https://www.overleaf.com/learn/latex/Articles/An_Introduction_to_LuaTeX_(Part_1)%3A_What_is_it%E2%80%9
- Fontspec pkg (for LuaTex) https://mirrors.rit.edu/CTAN/macros/unicodetex/latex/fontspec/fontspec.pdf * Video: Michelle . . . (very clear!)

```
Math Mode

*   AMS math  documentation
      \href{https://www.latex-project.org/help/documentation/amsldoc.pdf}{2017
      version on ipad}
*   https://www1.cmc.edu/pages/faculty/aaksoy/latex/latexthree.html#
*   http://web.mit.edu/rsi/www/pdfs/math.pdf
*   https://www.atqed.com/latex-column-vector
```

Good Technical Reading

- Linux: Archiwiki, Debian, FreeBSD
- Gross, Ash et al "Elliptical Tales" - very readable, but must think! (515.983 | ASH | 2012) * Linux- insides: https://0xax.gitbooks.io/linux-insides/content/
- Seefeld, et al Biology & R | https://cran.r-project.org/doc/contrib/Seefeld_StatsRBio.pdf
- Robert Sedgewick and Kevin Wayne (essential info . . . serious programmers) https://algs4.cs.princeton.edu/home/

ZSH

- Janssens, DS at Command Line: https://www.datascienceatthecommandline.com/2e/
  Great way to improve zsh, CLI skills. * Rothgar Mastering ZSH: https://github.com/rothgar/mastering-zsh

REGEX Focus: **grep -P, regex usage**:

- https://linuxize.com/post/regular-expressions-in-grep/#grep-regular-expression (overview, not bad place to start)

- another overview: https://bsd.org/regexintro.html
- !wikipidia - several excellent articles and background.
- GNU grep documentation: https://www.gnu.org/savannah-checkouts/gnu/grep/manual/grep.html#Top
- **wikipedia articles!**
  Because touch upon many issues: quoting, expansions, quasi-quotation, recursion, definitions which I have stumbled accross but never really understood at appropriate abstraction. Now it may clarify why do what we do and why the nomenclature is the way it is.
- !so regex FAQ: https://stackoverflow.com/tags/regex/info (specific question (else can get lost in all the permutations.)

Too comprehensive? (docs that cover flavors, usage in languages are too confusing to me)

- (Regex | Jan Goyvaerts) https://www.regular-expressions.info/tutorial.html (regex buddy)
- https://www.regular-experssions.mobi
- https://learnbyexample.github.io - some very intuitive arguments
- (iPad) Mastering Regular Expressions

Finite Automata?

- https://sodocumentation.net/regex
- https://swtch.com/~rsc/regexp/regexp1.html

Videos

- maththebeautiful - Paul?
- Statquest - Josh Starmer
- Bright Side of Math
- 3Blue1Brown
- Zedstatistics
- Chris Mack - practical R, models
- Statistics Globe * Edward Malthouse - is careful with assumptions. * Prof Christoph Scherber -03 * Lorenzo * Sadum * Tom Raby * Jazon Jiao (Alg + Regression)

DT Joins (merge)

- https://rdatatable.gitlab.io/data.table/index.html
- https://stackoverflow.com/questions/1299871/how-to-join-merge-data-frames-inner-outer-left-right?noredirect=1&lq=1 - https://jozef.io/r006-merge/ -

APIs and R

Longer Reading/Documentation

- Gargle docs include discussion of a few Google Cloud features
- Mozilla MDN
- Request body
- https://oauth.com (Aaron Parecki)
- web technologies, including RESTFUL, https://www.se.rit.edu/~swen-344/expectations/
- RFC Specs
- JSON - https://json-schema.org/

Something Linky

Videos

- Anson, Getting Google API/Oauth2 setup.
- Griffith Curl to make resquests. ggmaps Google Maps API https://www.youtube.com/watch?v=Of_M4kcE9yM&list=PLbcglKxZP5PN07Vw-0ukcDJCxFGY2Crgc
- freeCodeCamp Postman Intro.
- [Oauth 2.0 - Explain like I am 5] (https://www.youtube.com/watch?v=hHRFjbGTEOk)
- https://www.youtube.com/watch?v=rhi1eIjSbvkh Basic Authentication: urlencode, user:pass, how browser responds, TLS
- Curl's Creator https://youtu.be/I6id1Y0YuNk?list=PLbcglKxZP5PN07Vw-0ukcDJCxFGY2Crgc
- Postman and GitHub: https://youtu.be/AfuL7AFpFmQ?list=PLbcglKxZP5PN07Vw-0ukcDJCxFGY2Crgc
- Plumber::,R, api https://www.youtube.com/watch?v=J0Th2QRZ7Rk * R4DS all videos: https://www.youtube.com/c/R4DSOnlineLearningCommunity

CRAN Task Views: Web Technology & Services: https://cran.r-project.org/web/views/WebTechnologies.html * (R & Dropbox) https://github.com/karthik/rd (2020) * (R & Predictit) https://github.com/kiernann/predictr

RESTFUL APIS (see 0300_tech_notes.md)

NEOVIM/LUA

Config

- https://neovim.io/doc/user/quickref.html#option-list
- Code Ex: | Joel | goal: understand ! |https://github.com/whatsthatsmell/dots/tree/master/public%20dots/vim-nvim

- https://cj.rs/blog/my-setup/nvim-0-5/ | go to playlists | view all playlists | choose by length, date etc.
- Statusline: https://elianiva.my.id/post/neovim-lua-statusline#active-statusline
- https://www.jakewiesler.com/blog/getting-started-with-vim | Jake | good but limited.
- blog + https://vonheikemen.github.io/devlog/tools/configuring-neovim-using-lua/

- blog + https://blog.devgenius.io/create-custom-keymaps-in-neovim-with-lua-d1167de0f2c2
- Ex: https://gitlab.com/mcepl/vimdir/-/tree/master/plugin

- Ex: https://github.com/samuelludwig/nixrc/tree/master/modules/user/nvim/lua/dot
- 300 line challenge: https://neovim.discourse.group/t/the-300-line-init-lua-challenge/227
- https://benfrain.com/refactor-your-neovim-init-lua-single-file-to-modules-with-packer/
- https://github.com/nanotee/nvim-lua-guide
- kickstart: https://github.com/nvim-lua/kickstart.nvim/blob/master/init.lua

Lua

1. https://www.lua.org/manual/5.4/
2. http://www.lua.org/pil/contents.html (1st ed)
3. https://learnxinyminutes.com/docs/lua/ (learn X in Y)
4. http://lua-users.org/wiki/LuaDirectory (lua tutorial, wiki)
5. Lua by example: https://luabyexample.org/

Plugins

Android

- \href{https://www.androidauthority.com/lineageos-install-guide-893303/{decent primer:android RoM"
- adb documentation