```r
library(rstan)
```

```
## Loading required package:  Rcpp
## Loading required package:  ggplot2
## rstan (Version 2.8.0, packaged:  2015-09-19 14:48:38 UTC, GitRev:
05c3d0058b6a)
## For execution on a local, multicore CPU with excess RAM we recommend
calling
## rstan_options(auto_write = TRUE)
## options(mc.cores = parallel::detectCores())
```

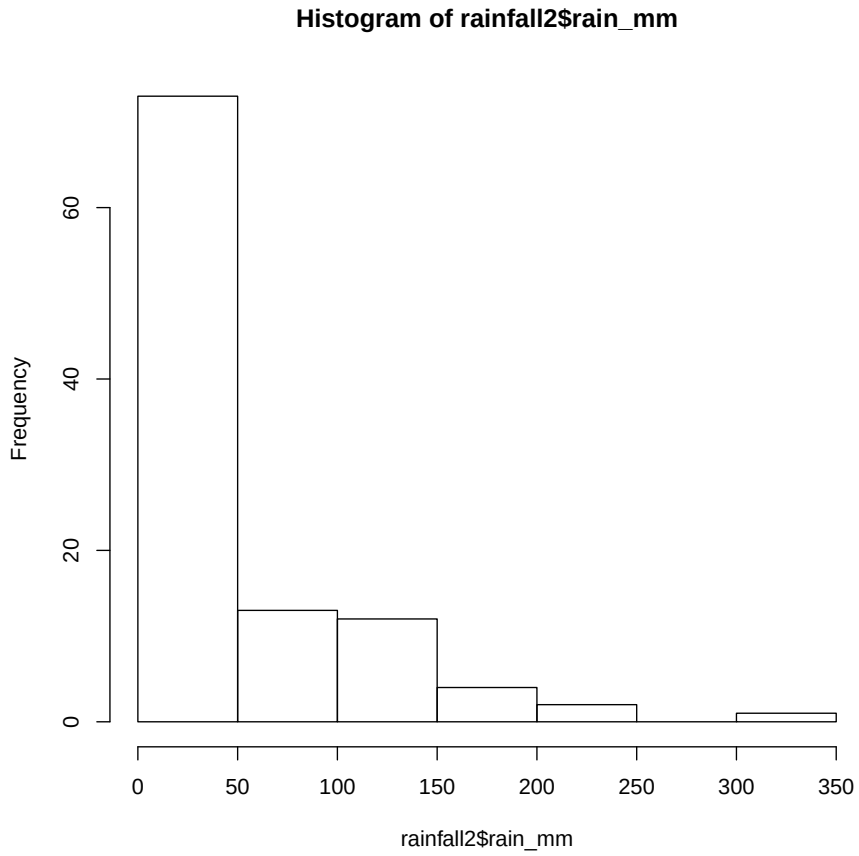
```r
rstan_options(auto_write = TRUE)
options(mc.cores = parallel::detectCores())

#library(ShinyStan)  #not available on cran for R3.2.2
library(shinystan)   #downloaded from cran
```

```
## Loading required package:  shiny
##
## This is shinystan version 2.0.1
```

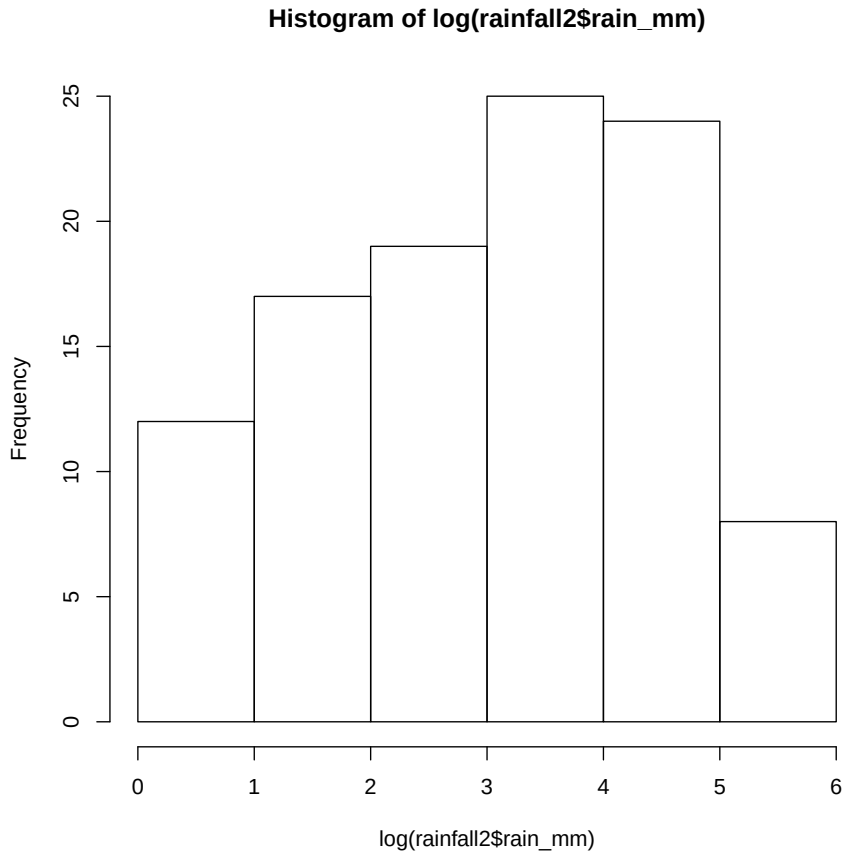
```r
pgm_name="precip_gamma_test"

rainfall=read.csv("amherstPRECIP.csv")
names(rainfall)<-c("n","year","month","day","rain_mm","X01")

str(rainfall)
```

```
## 'data.frame': 43981 obs. of  6 variables:
##  $ n      : int  2 3 4 5 6 7 8 9 10 11 ...
##  $ year   : int  1893 1893 1893 1893 1893 1893 1893 1893 1893 1893 ...
##  $ month  : int  1 1 1 1 1 1 1 1 1 1 ...
##  $ day    : int  2 3 4 5 6 7 8 9 10 11 ...
##  $ rain_mm: num  215 0 0 0 4 0 0 NaN 6 NaN ...
##  $ X01    : int  0 0 0 0 0 0 0 0 0 0 ...
```

```r
rainfall2<-subset(rainfall,!is.na(rain_mm) & year>1990 & year < 1992 & rain_mm>0)

hist(rainfall2$rain_mm)
```




```
hist(log(rainfall2$rain_mm))
```




```
y<-log(rainfall2$rain_mm)    #rainfall mm
Nobs<-length(y)              #number of obs

stanfit<-stan("precip_gamma_test.stan")

sessionInfo()

## R version 3.2.2 (2015-08-14)
## Platform: x86_64-redhat-linux-gnu (64-bit)
## Running under: Fedora 22 (Twenty Two)
##
## locale:
##  [1] LC_CTYPE=en_US.UTF-8       LC_NUMERIC=C
##  [3] LC_TIME=en_US.UTF-8        LC_COLLATE=en_US.UTF-8
##  [5] LC_MONETARY=en_US.UTF-8    LC_MESSAGES=en_US.UTF-8
##  [7] LC_PAPER=en_US.UTF-8       LC_NAME=C
```

```
##  [9] LC_ADDRESS=C               LC_TELEPHONE=C
## [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] shinystan_2.0.1 shiny_0.12.2    rstan_2.8.0     ggplot2_1.0.1
## [5] Rcpp_0.12.1     knitr_1.11
##
## loaded via a namespace (and not attached):
##  [1] plyr_1.8.3        shinyjs_0.2.0     base64enc_0.1-3
##  [4] tools_3.2.2       xts_0.9-7         digest_0.6.8
##  [7] evaluate_0.8      gtable_0.1.2      lattice_0.20-33
## [10] parallel_3.2.2    proto_0.3-10      gridExtra_2.0.0
## [13] stringr_1.0.0     dygraphs_0.4.5    htmlwidgets_0.5
## [16] gtools_3.5.0      stats4_3.2.2      grid_3.2.2
## [19] DT_0.1            inline_0.3.14     R6_2.1.1
## [22] reshape2_1.4.1    magrittr_1.5      codetools_0.2-14
## [25] shinythemes_1.0.1 scales_0.3.0      threejs_0.2.1
## [28] htmltools_0.2.6   MASS_7.3-44       mime_0.4
## [31] colorspace_1.2-6  xtable_1.7-4      httpuv_1.3.3
## [34] stringi_0.5-5     munsell_0.4.2     markdown_0.7.7
## [37] zoo_1.7-12

launch_shinystan(stanfit)

##
## Loading...
## Note:  for large models ShinyStan may take a few moments to launch.
##
## Listening on http://127.0.0.1:6286
```