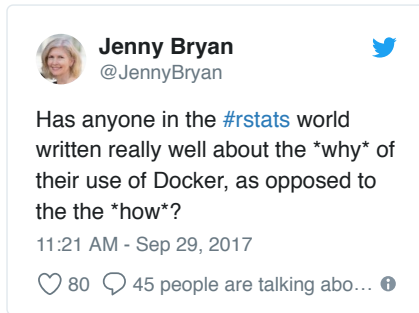


Docker and R

VP Nagraj

UVa School of Medicine Research Computing

Why Docker?



<https://twitter.com/JennyBryan/status/913785731998289920>

Why Docker?

<https://github.com/jennybc/docker-why>.

Quick notes about why an R user would use [Docker](#), jotted down as I read and thought about responses to [this tweet](#):

Has anyone in the #rstats world written really well about the why of their use of Docker, as opposed to the how?

This does NOT yet go exhaustively through all the replies, make proper links, etc. Mea culpa.

- **Educator**
- **Research/Analysis team**
- **R Package Developer**
- **Researcher who values computational reproducibility**
- **User of the cloud**
- **Nomad**
- **Other**

Why Docker?

Educator

Statistics course teaching setup (Mine Rundel and Colin Rundel)

<https://peerj.com/preprints/3181.pdf>

Exercises for **Introduction to eQTL Analysis** (Peter Humburg)

http://jknightlab.github.io/eqtl-intro/exercises/exercises_and_solutions.html

R training environment (Steph Locke)

<https://itsalocke.com/blog/building-an-r-training-environment/>

Why Docker?

Research/Analysis team

General motivation of Docker as reproducibility tool (Carl Boettiger)

<https://arxiv.org/pdf/1410.0846.pdf>

EcoHealth Alliance data science container (Noam Ross)

<https://github.com/ecohealthalliance/reservoir>

Handling computational expense of **rstanarm** (Andrew Heiss)

<https://www.andrewheiss.com/blog/2017/04/27/super-basic-practical-guide-to-docker-and-rstudio/>

Why Docker?

R Package Developer

Testing R packages with Docker (Jim Hester)

<https://www.jimhester.com/2017/10/13/docker/>

Personalized Docker image for package development (Yihui Xie)

<https://github.com/yihui/r-docker>

Docker for continuous integration (Ildi Czeller)

<https://ildiczeller.com/2017/09/17/r-pkg-check-with-docker-on-codeship/>

Tutorials

How to get started with data science in containers

<http://blog.kaggle.com/2016/02/05/how-to-get-started-with-data-science-in-containers/>

Enough Docker to be Dangerous

<http://seankross.com/2017/09/17/Enough-Docker-to-be-Dangerous.html>

R Docker tutorial from rOpenSci

<https://ropenscilabs.github.io/r-docker-tutorial/>

Tools

rocker

<https://www.rocker-project.org/>

harbor

<https://github.com/wch/harbor>

stevedore

<https://github.com/richfitz/stevedore>



Acknowledgments

docker-izing your work in R

<https://maraaverick.rbind.io/2017/11/docker-izing-your-work-in-r/>