Container

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References

Boettiger et al.: An introduction to Rocker: Docker containers for R

Boettiger-Eddelbuettel-2017

Carl Boettiger and Dirk Eddelbuettel. "An introduction to Rocker: Docker containers for R". In: *The R Journal* 9.2 (2017), p. 527. DOI: 10.32614/rj-2017-065.

Abstract: We describe the Rocker project, which provides a widely-used suite of Docker images with customized R environments for particular tasks. We discuss how this suite is organized, and how these tools can increase portability, scaling, reproducibility, and convenience of R users and developers.

Kurtzer et al.: hpcng/singularity: Singularity 3.7.3 **Kurtzer-cclerget-Bauer-etal-2021**

Gregory M. Kurtzer, cclerget, et al. *hpcng/singularity: Singularity 3.7.3*. 2021. DOI: 10.5281/ZENODO.1310023.

Kurtzer et al.: Singularity: Scientific containers for mobility of compute

Kurtzer-Sochat-Bauer-2017

Gregory M. Kurtzer, Vanessa Sochat, and Michael W. Bauer. "Singularity: Scientific containers for mobility of compute". In: *PLOS ONE* 12.5 (May 2017). Ed. by Attila Gursoy, e0177459. DOI: 10.1371/journal.pone.0177459.

Merkel: Docker: Lightweight Linux containers for consistent development and deployment **Merkel-2014**

Dirk Merkel. "Docker: Lightweight Linux containers for consistent development and deployment". In: *Linux Journal* 2014.239 (2014), p. 2. URL: https://www.linuxjournal.com/content/docker-lightweight-linux-containers-consistent-development-and-deployment.

Nüst et al.: The Rockerverse: Packages and applications for containerisation with R **Nust-Eddelbuettel-Bennett-etal-2020**

Daniel Nüst et al. "The Rockerverse: Packages and applications for containerisation with R". In: *The R Journal* 12.1 (2020), p. 437. DOI: 10.32614/rj-2020-007.

Abstract: The Rocker Project provides widely used Docker images for R across different application scenarios. This article surveys downstream projects that build upon the Rocker Project images and presents the current state of R packages for managing Docker images and controlling containers. These use cases cover diverse topics such as package development, reproducible research, collaborative work, cloud-based data processing, and production deployment of services. The variety of applications demonstrates the power of the Rocker Project specifically and containerisation in general. Across the diverse ways to use containers, we identified common themes: reproducible environments, scalability and efficiency, and portability across clouds. We conclude that the current growth and diversification of use cases is likely to continue its positive impact, but see the need for consolidating the Rockerverse ecosystem of packages, developing common practices for applications, and exploring alternative containerisation software.