

An aerial photograph of a winding river, likely the Colorado River, flowing through a valley. The river is a vibrant blue-green color. The surrounding land is a mix of brown and green, with patches of snow and ice visible on the river's surface. In the background, there are majestic, snow-capped mountains under a clear sky.

Intro to mlflow with R



James
Blair
Solutions Engineer @ RStudio

Overview

1. mlflow
2. tidymodels
3. Best practices
4. What's new
5. Resources



Photo by Jessica Furtney on Unsplash



An open source platform for the
machine learning lifecycle

Latest News

MLflow 1.8 Released! (21 Apr 2020)

MLflow 1.7.2 Released! (20 Mar 2020)

MLflow 1.7.1 Released! (17 Mar 2020)

MLflow is dropping Python 2 support in 1.8.0 (08 Mar 2020)

[News Archive](#)



WORKS WITH ANY ML LIBRARY, LANGUAGE & EXISTING CODE



RUNS THE SAME WAY IN ANY CLOUD



DESIGNED TO SCALE FROM 1 USER TO LARGE ORGS



SCALES TO BIG DATA WITH APACHE SPARK™

mlflow workflows

- mlflow tracking
 - Track details about ML models
- mlflow projects
 - Create reproducible training runs
- mlflow models
 - Deploy models
- model registry
 - Track and store models



Photo by Mario Álvarez on Unsplash

tidymodels package



1. A collection of packages (think tidyverse) with a shared API for model fitting in R



mlflow-intro.Rmd

```

26 ---  

27  

28 # Cars  

29  

30 ```{r setup}  

31 # Packages ----  

32 library(mlflow)  

33 library(carrier)  

34 library(tidyverse)  

35 library(tidymodels)  

36 library(fs)  

37  

38 # Plotting ----  

39 theme_set(theme_bw())  

40 ```

41  

42 ## mlflow setup

```

29:1 # Cars

Console Terminal 1 JamesBlair@James-MBP: ~/Documents/RStudio/repos/mlflow-intro/R

```

[2020-05-21 22:30:20 -0600] [25980] [INFO] Booting worker with pid: 25980
[2020-05-21 22:30:20 -0600] [25981] [INFO] Booting worker with pid: 25981
^C
Aborted!

```

```

[2020-05-21 22:41:09 -0600] [25975] [INFO] Handling signal: int
[2020-05-21 22:41:09 -0600] [25981] [INFO] Worker exiting (pid: 25981)
[2020-05-21 22:41:09 -0600] [25978] [INFO] Worker exiting (pid: 25978)
[2020-05-21 22:41:09 -0600] [25979] [INFO] Worker exiting (pid: 25979)
[2020-05-21 22:41:09 -0600] [25980] [INFO] Worker exiting (pid: 25980)
[2020-05-21 22:41:09 -0600] [25975] [INFO] Shutting down: Master
(r-mlflow-1.8.0)

```

mlflow-intro/R on master [?] via R-mlflow-1.8.0 took 10m 50s

→

Environment History Connections Git Tutorial

Import Dataset

Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder Delete Rename More

Home Documents RStudio repos mlflow-intro R

Name	Size	Modified
..		
mlflow-artifacts		
mlflow-intro.nb.html	765.6 KB	May 22, 2020, 10:56 AM
mlflow-intro.Rmd	5.2 KB	May 22, 2020, 10:56 AM
mlflow.db	100 KB	May 21, 2020, 10:08 PM
mlruns		

New packages / updates

- renv
 - Manage package environments
- sparklyr
 - Now with a book!
- blastula
 - Beautiful emails from R
- gt
 - Beautiful tables from R

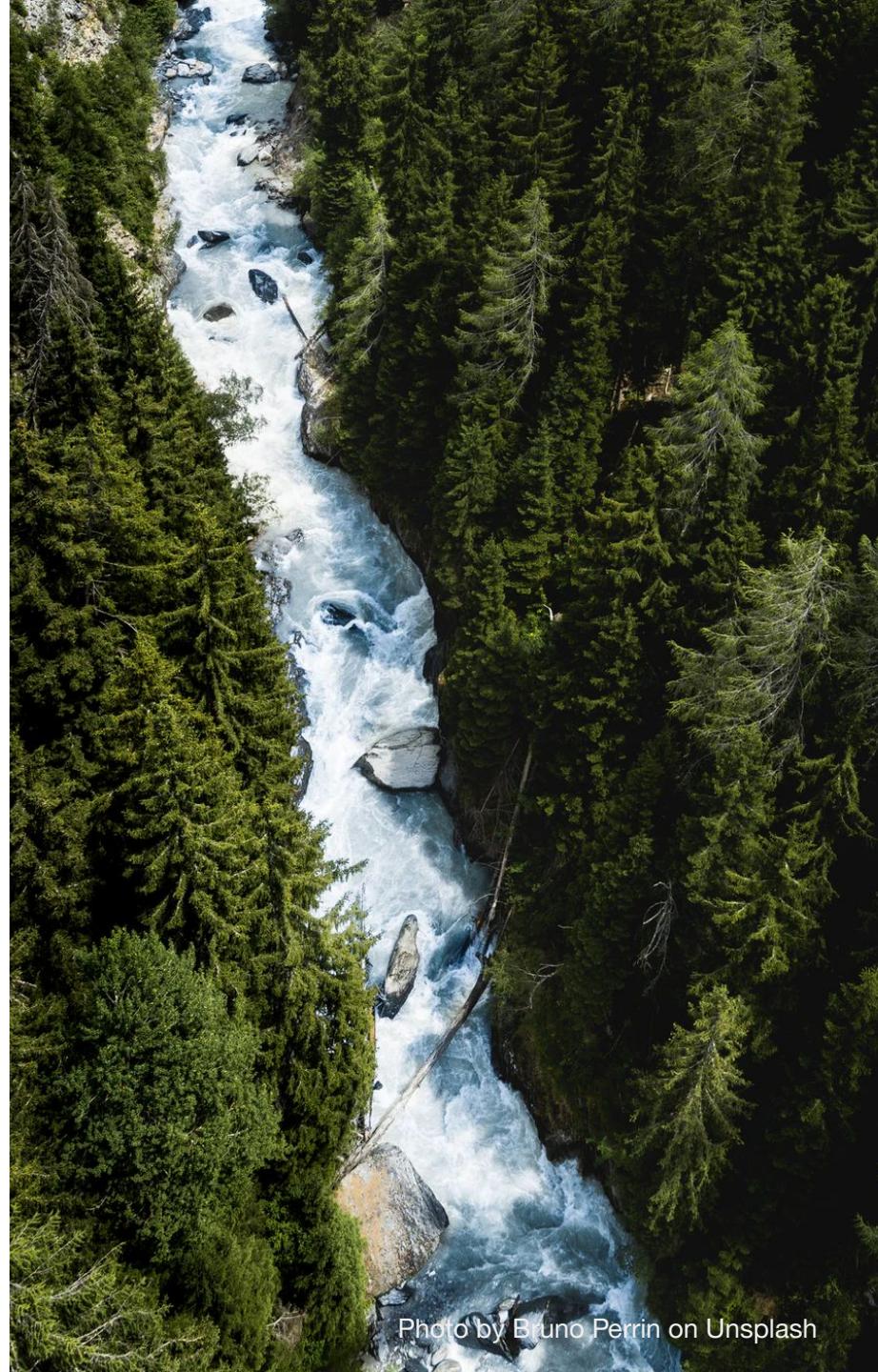


Photo by Bruno Perrin on Unsplash

Bookmark and check regularly

- <http://db.rstudio.com/>
- <http://spark.rstudio.com/>
- <https://www.tidyverse.org/>
- <https://rviews.rstudio.com/>
- <https://rviews.rstudio.com/categories/databases>
- <https://blog.rstudio.com/>

Familiarize yourself with the repos

If I need to...	Check out
Report an issue or see if others are having the same problem	Issues
See if an feature exists or if it's coming up in future releases	NEWS
See the basics about the package	README

- <https://github.com/tidymodels/>
- <https://github.com/mlflow/mlflow/tree/master/mlflow/R/mlflow>
- <https://github.com/sparklyr/sparklyr>
- <https://github.com/rstudio/renv>
- <https://github.com/rich-iannone/blastula>
- <https://github.com/rstudio/gt>

Join the community!

R Studio Community

all categories ► all tags ► Categories Latest New (12) Unread Top

Category	Topics	Latest
 rstudio::conf 2018 This category is for anything and everything related to rstudio::conf.	4 / week 2 new	 How can I connect R with v application • new rstudio
 tidyverse This category is for anything and everything about the tidyverse.	23 / week	 □ Crash when quitting ■ RStudio IDE bug
 RStudio IDE This category is for discussing the RStudio IDE, both	16 / week 3 new	 □ Is there a way to measure • new

<https://community.rstudio.com/>



Thank you