## Twitter Tweets

## Kevin Putschko December 13, 2019

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#### 1 Introduction

Notice the Table of Contents in the page above, and the new page here. With R Markdown, we can easily incorporate LaTeX into our RMD documents. Here we're using the simply \newpage function to act as a page break.

In this report, we're going to look at the 1000 most recent tweets containing the #rstats hashtag. This is done using the rtweet package, which requires nothing more than a user id and password to access Twitter.

Notice that this table is too long to fit on a single page, so it spreads across multiple pages while maintaining the headers across pages. This table was created using the kableExtra package and the kable function.

Table 1: Which hashtags show up with #rstats?

Hashtag	Count	Retweet Count	Favorite Count
rstats	851	2909	9084
tidyverse	178	320	561
DataScience	131	2007	1431
RStats	109	1930	1176
Python	99	1673	996
BigData	93	1693	984
IoT	90	1911	1013
Analytics	85	1506	885
AI	82	1620	874
ToII	79	1703	882
JavaScript	79	1564	907
MachineLearning	79	1553	868
ReactJS	77	1553	902
Serverless	76	1731	914
CloudComputing	74	1554	887
GoLang	74	1526	889
Linux	73	1570	911
DataScientist	72	1649	885
Java	65	1371	694
TensorFlow	58	1134	652
PyTorch	57	1141	658
Rstats	50	129	346
dataviz	28	131	407
ozunconf19	28	111	577
python	26	97	148
datascience	26	87	144
Statistics	22	214	151
SAS	17	121	45
TidyTuesday	17	102	438
R	15	258	72
ggplot2	15	138	659
Programming	14	88	70
Stats	14	21	40
DeepLearning	13	272	165
ML	12	93	76
r4ds	12	55	180

Table 1: Which hashtags show up with  $\# {\sf rstats?}\ (continued)$ 

Hashtag	Count	Retweet Count	Favorite Count
Code	12	21	22
statistics	11	50	188
Biostatistics	11	16	23
Books	9	192	115
rladies	9	34	115
Hadoop	8	175	65
DataAnalytics	8	24	32
AdventOfCode	8	9	45
Infographic	7	258	55
Cloud	7	242	41
NLProc	7	133	81
m NoSQL	7	118	66
Research	7	9	14
IaaS	6	238	39
makeyourownlane	6	238	39
OpenSource	6	238	39
PaaS	6	238	39
SaaS	6	238	39
Mathematics	6	158	9'
	6	122	68
ReinforcementLearning VueJS	6	117	7'
AWS	6	102	6;
aws pydata	6	43	8
SQL	6	21	20
data	6	20	65
rstudio	6	18	10
programming	6	12	29
CDISC	6	7	10
mpgvip	5	228	3'
HealthTech	5	98	49
epitwitter	5	31	3
machinelearning	5	30	23
DL	5	24	23
openscience	5	17	13
Wednesday Motivation	5	15	8
shiny	5	11	2
r	5	9	4
ClinicalTrial	5	8	:
RStudio	5	8	19
stats	5	7	8
keras	4	80	60
ApacheSpark	4	67	5
Jupyter	4	47	20
genomics	4	41	35
WMMC19	4	26	40
	1	-0	10

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
opensource	4	15	7
WednesdayWisdom	4	13	7
ggplot	4	11	19
WednesdayThoughts	4	11	6
deeplearning	4	9	14
gganimate	4	9	40
DataViz	3	97	17
HPC	3	85	48
Algorithms	3	81	58
cloud	3	73	42
java	3	73	42
MBA	3	73	42
reactjs	3	73	42
Scala	3	73	42
stem	3	73	$\frac{1}{42}$
tech	3	73	42
bioinformatics	3	54	29
immunology	3	39	28
RareDisease	3	39	28
SNRTG	3	39	28
FinTech	3	31	16
BestTidyTuesday2019	3	27	135
opendata	3	15	13
AcademicChatter	3	14	46
BES2019	3	13	13
forecasting	3	13	38
statstwitter	3	12	56
bigdata	3	11	5
DataScientists	3	9	4
TIL	3	9	31
AcademicTwitter	3	8	13
tidytuesday	3	8	14
phdchat	3	7	69
coding	3	5	4
rshiny	3	5	12
analytics	3	4	6
Rstudio	3	4	1
FridayFeeling	3	2	2
FridayMorning	3	2	2
FridayMotivation	3	2	2
FridayThoughts	3	2	2
ThursdayMotivation	3	2	10
ThursdayThoughts	3	1	9
SocialMedia	2	96	17
career	2	63	40
MS	2	63	40

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
DevOps	2	58	13
100DaysOfCode	2	53	29
art	2	53	29
enjoy	2	53	29
futureofwork	2	53	29
life	2	53	29
Programmer	2	53	29
robotics	2	53	29
Algebra	2	43	30
Calculus	$\frac{2}{2}$	43 43	30 30
ComputerScience FPGA	$\frac{2}{2}$	43 42	21
Udemy	2	37	19
ApacheKafka	$\frac{2}{2}$	34 31	13 19
autoimmune MQTT	$\frac{2}{2}$	31	23
cartoon	$\frac{2}{2}$	30	15
yoga Azure	$\frac{2}{2}$	30 27	15 18
erum2020	$\frac{2}{2}$	25	$\frac{16}{22}$
Golang	$\frac{2}{2}$	24	10
B2B	2	23	19
BI	2	23	11
serverless	$\frac{1}{2}$	21	16
nhsr	2	20	75
GeoSpatial	2	18	10
GIS	2	18	10
package	2	17	41
rfinance	2	15	22
Rladies	2	15	21
packagecalendar	2	14	51
ArtAdventCalendar	2	13	66
rmarkdown	2	13	33
ecology	2	11	28
health	2	11	5
julialang	2	11	3
meetup	2	8	16
DataIsBeautiful	2	7	10
reticulate	2	7	20
satRdayJoburg	2	7	10
textmining DH	$\frac{2}{2}$	7 6	3 6
simulation	2	6	12
WednesdayMorning Detection	$\frac{2}{2}$	6	3
Datavisualization ozunconf	$\frac{2}{2}$	5 5	6 12
OZUNCOM	2	9	12

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
sas	2	5	3
CDM	2	4	2
DataManagement	2	4	3
Eredivisie	2	4	2
mlr3	2	4	10
openaccess	2	4	7
spatial	2	4	8
Australia	2	3	4
Bayesian	2	3	4
biostats	2	3	4
datacamp	2	3	8
reproducibleresearch	2	3	1
timeseries	2	3	11
ArtificialStupidity	2	2	1
bmbstats	2	2	3
ganardinero	2	2	2
networkanalysis	2	2	1
nlg	2	2	1
pakin	2	2	2
phdlife	2	2	14
rdata	2	2	0
suerte	2	2	2
ThursdayMorning	2	1	7
sf	1	81	466
movevis	1	64	225
uvabits	1	64	225
CyberSecurity	1	50	10
DesignThinking	1	45	35
Innovation	1	45	35
5G	1	43	27
happy	1	43	27
holidays	1	43	27
Iiot	1	43	27
DataSci	1	41	5
Software	1	41	5
BioInformatics	1	39	19
NeuroScience	1	37	20
African	1	23	19
WHO	1	23	19
ApacheFlink	1	22	8
BitCoin	1	22	8
Kubeflow	1	21	14
Tensorflow	1	21	14
100daysofcode	1	20	16
arts	1	20	13
ai to	1		

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
dance	1	20	13
DynamoDB	1	20	11
F4F	1	20	13
father	1	20	13
kid	1	20	13
KSQL	1	20	16
Lambda	1	20	11
MongoDB	1	20	11
mother	1	20	13
NLU	1	20	7
NodeJS	1	20	11
school	1	20	13
Sensor	1	20	16
sketch	1	20	13
BusinessIntelligence	1	19	g
CEO	1	19	17
CIO	1	19	17
CM	1	19	17
CTO	1	19	17
CXO	1	19	17
Clojure	1	18	9
RstatsEs	1	18	19
Ruby	1	18	()
Rust SciComm	1 1	18 18	9 12
TensorFlowJS	1	18	13
Developer	1	17	8
Docker	1	17	8
Kubernetes	1	17	8
fbSim	1	16	40
vctrs	1	16	55
birds	1	15	22
cake	1	15	22
research	1	15	22
rstan	1	15	61
whales	1	15	22
Deeplearning4j	1	14	10
GlobalAIBootcamp	1	13	15
markdown	1	13	41
Melbourne	1	13	15
msftadvocate	1	13	15
sciComm	1	13	7
Hazelcast	1	12	Ē
htmlwidget	1	12	46
InMemoryComputing	1	12	5
Shiny	1	12	21
эшпу	1	12	21

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
APIs	1	11	7
EdgeComputing	1	11	7
RecSys	1	11	7
RESTful	1	11	7
arte	1	10	2
cartogram	1	10	34
fivethirtyeight	1	10	56
fun	1	10	2
lol	1	10	2
love	1	10	2
romance	1	10	2
SDS390	1	10	56
wellness	1	10	2
agu19	1	9	28
ComputerVision	1	9	6
GAM	1	9	27
generalerection	1	9	34
geocompr	1	9	21
girlswhocode	1	9	55
oa	1	9	27
rayshader	1	9	34
bigData	1	8	(
$^{\mathrm{C}}$	1	8	(
CPP	1	8	(
PrimaryImmunodeficiency	1	8	(
Rea	1	8	2
Bioinformatics	1	7	36
blacktech	1	7	4
devs	1	7	4
ilovecodinginR	1	7	4
mlverse	1	7	18
OzUnconf19	1	7	22
techspace	1	7	4
tensorflow	1	7	18
Terminology	1	7	2
wimlds	1	7	4
womenintech	1	7	4
WomenWhoCode	1	7	2
dataframes	1	6	25
DataScient	1	6	·
dplyr	1	6	16
dpylr	1	6	25
fuzzyjoin	1	6	25
jupyter	1	6	1
matplotlib	1	6	1
metagenomic	1	6	•

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
microbiome	1	6	3
oss	1	6	1
pandas	1	6	1
phyloseq	1	6	3
RPackages	1	6	10
bayesian	1	5	2
codenewbie	1	5	5
codinglife	1	5	5
colsci	1	5	19
HMMs	1	5	8
just3things	1	5	20
measles	1	5	21
oslo	1	5	14
OUP	1	5	5
Serverle	1	5	1
vaccinateplease	1	5	21
whale	1	5	8
2019Election	1	4	3
API	1	4	27
ArcGIS	1	4	12
ArcPy	1	4	8
bayes	1	4	8
benchmarks	1	4	2
Cairngorms	1	4	12
climatechange	1	4	10
CompSci	1	4	16
Data	1	4	2
DataCuration	1	4	2
DataEnrichment	1	4	2
datavisualization	1	4	7
DataWarehouse	1	4	2
DiscreteEventSimulation	1	4	11
dolphins	1	4	8
Download	1	4	2
eBook	1	4	2
EpiTwitter	1	4	16
ERP	1	4	2
eRum2020	1	4	2
ETL	1	4	2
EuroBioc2019	1	4	4
fingerprint	1	4	12
Hacking	1	4	16
HEOR	1	4	11
learningtower	1	4	13
modeling	1	4	11
pca	1	4	3

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
pythonista	1	4	1
RShiny	1	4	38
RStan	1	4	6
satRday	1	4	3
Science	1	4	3
sdm Smooth	1 1	4	$\frac{8}{2}$
Spark	_	4	
textanalysis	1	4	3
tidyfridee	1	4	12
tidytext vscode	1 1	4 4	3 10
YouReWelcome	1	4	2
25daysofR AdventofCode	1 1	3	$\frac{36}{3}$
AGU2019	1	3	8
algorithm	1	3	3
ArtificialIntelligence	1	3	11
assignment	1	3	2
australia	1	3	$\frac{2}{2}$
bash	1	3	1
Basic	1	3	$\stackrel{\cdot}{2}$
bookaddict	1	3	0
clustering	1	3	3
d3	1	3	6
DataCleansing	1	3	2
DataDriven	1	3	2
DataInnovationSummit2020	1	3	2
DataScienc	1	3	2
datasicence	1	3	0
DataSweden	1	3	2
DEVcommunity	1	3	14
DigitalTransformation	1	3	2
elongated	1	3	3
generalelection	1	3	6
GeneralElection	1	3	5
GoLa	1	3	3
hackaviz	1	3	2
HealthPolicy	1	3	2
Histograms	1	3	2
homework	1	3	2
HypothesisTesting javascript	1 1	3 3	2 6
· -			
julia	1	3	7
kindle knitr	1 1	3 3	0
Logarithmic	1	3	$\frac{22}{2}$
Logarithmic	1	3	2

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
Logistics	1	3	2
manningbooks	1	3	5
matlab	1	3	2
megenreg	1	3	2
naturallanguageprocessing	1	3	0
NBATwitter	1	3	1
NMDS	1	3	12
Outsourcing	1	3	2
ozdata	1	3	6
phd	1	3	$\overset{\circ}{2}$
PhDlife	1	3	$\frac{2}{24}$
podcastbrasil	1	3	1
podcastbrasileiro	1	3	1
politics	1	3	6
prediction	1	3	0
PublicServices	1	3	$\frac{0}{2}$
RadventcalendaR			
Radventcalendar RegresiónLineal	1 1	3 3	$\begin{array}{c} 36 \\ 2 \end{array}$
rforanalytics	1	3	7
rforresearch	1	3	7
RLadies	1	3	10
			10
rockclimbing	1	3	24
rr	1	3	18
rstatsfr	1	3	2
sentimentanalysis	1	3	0
SingleCross	1	3	3
SPSS	1	3	2
sql	1	3	1
Stata	1	3	2
statisticsexam	1	3	2
statistique	1	3	2
Sydney	1	3	8
towardsdatascience	1	3	0
UK	1	3	6
UKelection2019	1	3	5
UNSWWomenChamps	1	3	10
usa	1	3	2
WisualizationWednesday	1	3	$\frac{2}{24}$
ADAM	1	2	1
AES	1	2	7
ai	1	$\frac{2}{2}$	2
	1	2	2
artificialintelligence Bayes	1	$\frac{2}{2}$	0
BCG	1	$\frac{2}{2}$	1
	1	$\frac{2}{2}$	
biographics		$\frac{2}{2}$	0
biostatistics	1	2	1

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
boston	1	2	5
Boston	1	2	5
ClubHectare	1	2	7
correlation	1	2	1
cpp	1	2	20
D3	1	2	8
dataanalysis	1	2	1
datacommunitydc	1	2	4
dataScience	1	2	1
datascientists	1	$\frac{1}{2}$	6
dovalonor	1	2	0
developer diversity	1	$\frac{2}{2}$	0
	1	$\frac{2}{2}$	$\frac{0}{2}$
ecr edificación	1	$\frac{2}{2}$	1
ElectionTwitter	1	$\frac{2}{2}$	7
			_
ELMS	1	2	7
erstecampus	1	2	1
ethics	1	2	2
examtomorrow	1	2	1
FAIR	1	2	2
filemanagement	1	2	2
FORCIS	1	2	4
fractal	1	2	2
FrontEnd	1	2	11
FunctionFriday	1	2	3
GCMS	1	2	2
GE2019	1	2	3
generative	1	2	20
Geneva	1	2	4
gpubr	1	2	4
Hexagons	1	2	2
Hydroinformatcs	1	$\frac{2}{2}$	1
iddynamics	1	$\frac{2}{2}$	0
impeachment	1	$\frac{2}{2}$	6
industria	1	2	1
JAVA	1	2	1
Julia	1	2	1
learnpython	1 1	$\frac{2}{2}$	$0 \\ 3$
machineLearning macroeconomics	1	$\frac{2}{2}$	3 1
makestatscool	1	2	5
marine	1	2	2
mathematicaleconomics	1	2	1
maths	1	2	20
mcmc	1	2	0
meme	-	_	· ·

Table 1: Which hashtags show up with #rstats? (continued)

Meetup metabarcoding metabolomics	1	2	
		_	5
metabolomics	1	2	1
	1	2	2
Michigan	1	2	1
microeconomic	1	2	1
modelling	1	2	2
multivariate	1	2	1
NaturalGas	1	2	2
nodexl	1	2	6
nyc	1	2	1
NYC	1	2	4
opencv	1	2	4
OpenMx	1	2	4
png	1	2	4
Pollinators	1	2	7
probability	1	2	1
progressbar	1	2	3
projectmanagement	1	2	2
pythoncoding	1	2	0
pythonprogramming	1	2	0
QGIS	1	2	6
quantargo	1	2	1
realDonaldTrump	1	2	6
regex	1	2	0
RFeedbackFriday	1	2	3
rladiesarg	1	2	8
RLadiesArg	1	2	7
rladiesES	1	2	7
rladieslatam	1	2	8
RLadiesLatam	1	2	7
runconf19	1	2	5
SDM	1	2	2
SDTM	1	2	1
SeattleUseR	1	2	2
semester	1	2	1
shotsfired	1	2	4
Sierpinski	1	2	2
$\operatorname{spdc}$	1	2	4
spss	1	2	1
statisticshelp	1	2	1
string	1	2	0
TheSimpsons	1	2	4
Tidyverse	1	2	1
ToddlerLife	1	2	13
tookeen	1	2	8
Toxalim	1	2	1

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
trump	1	2	6
tuberculosis	1	2	1
ubuntu	1	2	1
ultrarunning	1	2	9
Unicorns	1	2	1
viennar	1	2	1
vivienda	1	2	1
Water	1	2	1
wser2020	1	2	9
zettahealth	1	2	4
<u+6ce8><u+610f><u+70b9></u+70b9></u+610f></u+6ce8>	1	1	C
Academia	1	1	4
acwri	1	1	5
Attribution	1	1	g
bioconductor	1	1	(
BitsxlaMarató	1	1	(
BKN	1	1	(
blogdown	1	1	(
bookofwhy	1	1	1
books	1	1	1
BrooklynNets	1	1	(
caret	1	1	(
ChannelAttribution	1	1	(
ChrisStats	1	1	1
CodeGoals	1	1	]
CRAN	1	1	4
CustomerJourney	1	1	(
data_analyst	1	1	
dataanalytics	1	1	6
docker	1	1	(
EC2	1	1	4
EMA	1	1	•
Excel	1	1	(
exito	1	1	1
experiments	1	1	4
FDA	1	1	ę
$\operatorname{FelizJueves}$	1	1	1
FelizMiercoles	1	1	1
fintech	1	1	6
Fintech	1	1	ę
forgetfulweb	1	1	(
fortran	1	1	(
GCU	1	1	1
GE19	1	1	(
Genomics	1	1	6
Gerontology	1	1	(

Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
git	1	1	4
gradschool	1	1	13
GreatAmericanBakingShow	1	1	9
hackathon	1	1	0
hugo	1	1	0
ImGoingWithBrooklyn ISometimesKnowHowToR	1 1	1 1	$0 \\ 3$
	_		
justonething	1	1	5
KKD LaMaratódeTV3	1 1	$\frac{1}{1}$	$\frac{1}{0}$
lazyweb	1	1	0
LearningLab	1	1	9
list	1	1	0
mantra	1	1	4
marketing	1	1	4
MarkovChains	1	1	9
MSFTStudentPartner	1	1	5
msoffice	1	1	4
MSPNepal	1	1	5
NBA	1	1	0
NBAstats	1	1	0
Nets	1	1	0
NLP	1	1	0
Numberphile	1	1	0
paragliding	1	1	0
parcoursup	1	1	2
phdchatter	1	1	9
plumber	1	1	0
ProjectEuler	1	1	0
pvalue	1	1	5
PyConPeru2020	1	1	1
raster	1	1	2
rdatatable	1	1	0
reproducibility	1	1	4
RhodeIsland Rpackage	1 1	1 1	$0 \\ 2$
rstatsFR	1	1	3
rstatsnewbie rstudioconf	$1 \\ 1$	1 1	3
rvest	1	1	1
S3	1	1	4
science	1	1	0
shinyMobile	1	1	1
SorryNotSorry	1	1	9
stata	1	1	0
team_smokey_bear	1	1	$\stackrel{\circ}{4}$

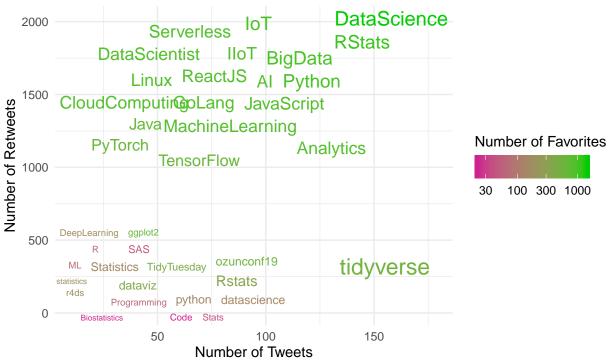
Table 1: Which hashtags show up with #rstats? (continued)

Hashtag	Count	Retweet Count	Favorite Count
teamworkmakesthedreamwork	1	1	6
tfw	1	1	1
tidymodels	1	1	0
tsibble	1	1	4
UsingR	1	1	0
VisualAbstract	1	1	0
WeGoHard	1	1	0
Wingman	1	1	0
yougotskillz	1	1	4
zomgmybrainhurts	1	1	9
ArtificailIntelligence	1	0	2
DataProjects	1	0	0
Denial	1	0	1
Education	1	0	3
Leaders	1	0	1
leadership	1	0	1
Management	1	0	1
TidyWrappers	1	0	3

#### 2 Chatter Plot

This is just a chart showing which hashtags are most used with #rstats.

# Hashtag Co–Occurance with #rstats Limited to hashtags appearing in more than 10 tweets



Pulled from the most recent 1000 tweets as of 2019-12-13 12:15:32

#### 3 Co-Occurance Chart

This is a co-occurance chat showing which hashtags show up together. Notice the page is flipped horizontally, however the page number is still in the original orientation. This is an issue I'm looking into.

Hashtags that appear in the same tweet Limited to the top 500 hashtags

dataviz

TidyTuesday

rstats

tidyverse

Rstats

Code

**Biostatistics** 

Programming Stats SAS

ML RStats Python Statistics

PyTorch BigData Analytics DataScience

AI MachineLearning CloudComputing

TensorFlow Serverless Books

GoLang Java ReactJSLinux IIoT DeepLearning

DataScientist JavaScript IoT

Pulled from the most recent 1000 tweets as of 2019–12–13 12:15:34

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### 4 Conclusion

PDF documents are bit more complex than HTML documents, but are also more conducive to incorporating LaTeX formatting and functions.