

MLOps with vetiver in Python and R

RStudio Enterprise Meetup

Julia Silge & Isabel Zimmerman September 20, 2022

Who are we?



@isabelizimm
@isabelizimm
isabelizimm.github.io



Qjuliasilge
Qjuliasilge
Jjuliasilge.com

Who are you?

Who are you?



What language does your team use for machine learnir

If you develop a model...

you can operationalize that model!

If you develop a model...

you likely should operationalize that model!

What is MLOps?

INFRASERUCTURE	MALYTICS	MACHINE LEARNING & ARTIFICIAL INTELLIGENCE	APPLICATIONS - INTERPRISE		
	ARALYTICS BPARTORNE USforr Comments USforr Comments Comme	MACHINE LEARNING & ATTICLUE INTELLECTORS	MUS MUNITING-152 MUNITING-152		
Constant Financian Constant Financian Constant Financian Financia	Minime Balance with the second routine Balance and the second				
Exception MAXIMUM Control and a sector of the sector of	NAME BARDI OURT BARDI Oracle Contract Oracle Oracle Oracle Oracle Oracle Oracle MIRACH Oracle		MALTINGAN MITCHNESS MARCHARM MITCHNESS		

MACHINE LEARNING, ARTIFICIAL INTELLIGENCE, AND DATA (MAD) LANDSCAPE 2021

	DATA RESOURCES			
DATA WAARETPLACES FIRMACIAL & ECONOMIC DATA ARE/SPACE/SEA	PIOPULIENTING IDEATOR INTILLIGATE	ODATA		RESEARCH
& DECOVERY Boarding () tomorrow D see mer Guard. Office a	- # Z meth Miles there forester Omobles	MACONE D- MACDIET Laberthe	Commenter @ Bas (Mar) Territor @ Promoter @ Bask Alland CharGong	@ OpenA2 Geogle Resourch Racebook ressorch
Contraction of the Contraction o	Territoria di seconda di			
Same and Andre Frank service and the	Contract Change (Contractor		IN haugh Bertill bathin fair. Is beautin gemanne (P) and beautin	
Number and the Brand Street States And the Oak Street Stre	Character Dangel realized Japan Control 2 Germania	Versien Remember	Detailined WIDNLEYN'	ALL ANTHROPIC SOR IT

Version 3.0 - November 2021

© Matt Turck (@mattturck), John Wu (@john_d_wu) & FirstMark (@firstmarkcap)

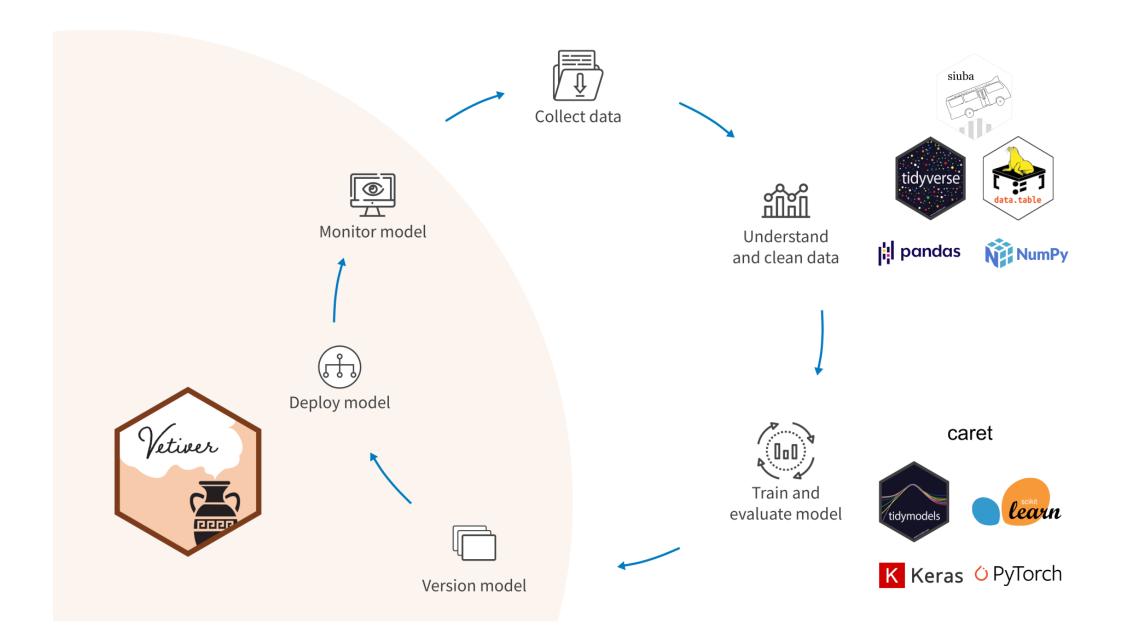
mattturck.com/data2021

FIRSTMARK -



a set of <u>practices</u> to *deploy* and *maintain* machine learning models in production **reliably** and **efficiently**





🤔 What package do you use most for machine learnir



• Versioning

managing change in models

- Versioning
- Deploying

putting models in REST APIs



- Versioning
- Deploying
- Monitoring

tracking model performance



We did it!



a set of <u>practices</u> to *deploy* and *maintain* machine learning models in production **reliably** and **efficiently**

What does vetiver do?

- Version
- Deploy
- Monitor

your R and Python models



Where does vetiver work?

- RStudio's pro products, like Connect
- A public or private cloud, using Docker

Learn more

- Documentation at https://vetiver.rstudio.com/
- Isabel's talk from rstudio::conf() 2022 on Demystifying MLOps Image Additional Additiona
- Julia's recent screencast on deploying a model with Docker
- End-to-end demos from RStudio Solution Engineering in R and Python