

End-to-End Data Science Deployment with , , , and .



 @alexkgold
rstd.io/deploy2020

A Shiny App



A Shiny App



So shiny...



A Shiny App





A Shiny App

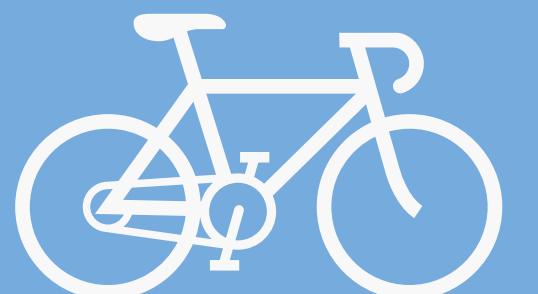


The App!





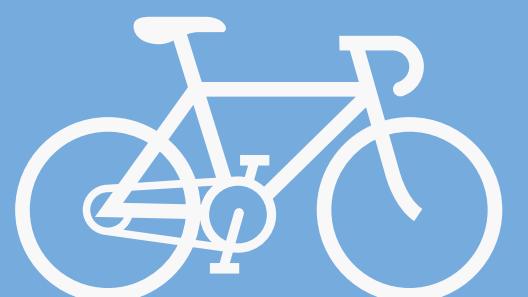
Import



API



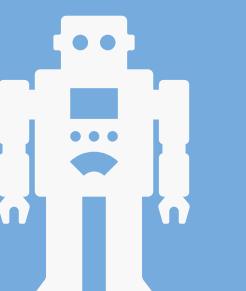
Import



API



Train



XGB



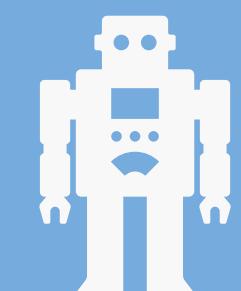
Import



API



Train



XGB



Serve



R Studio®

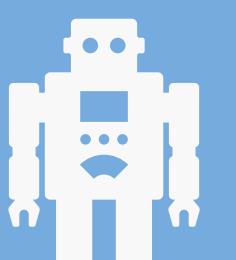
Import



API



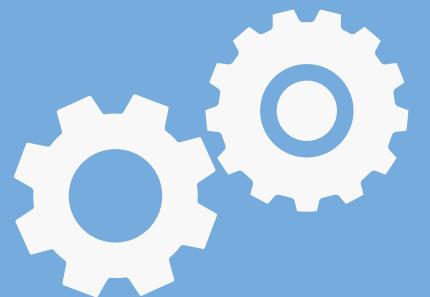
Train



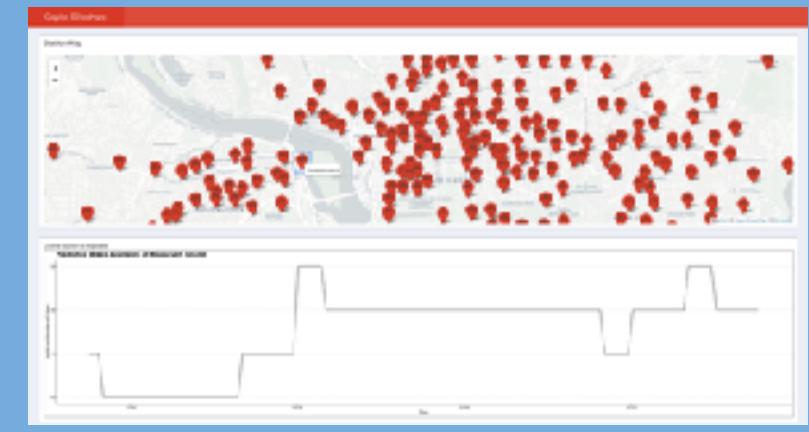
XGB



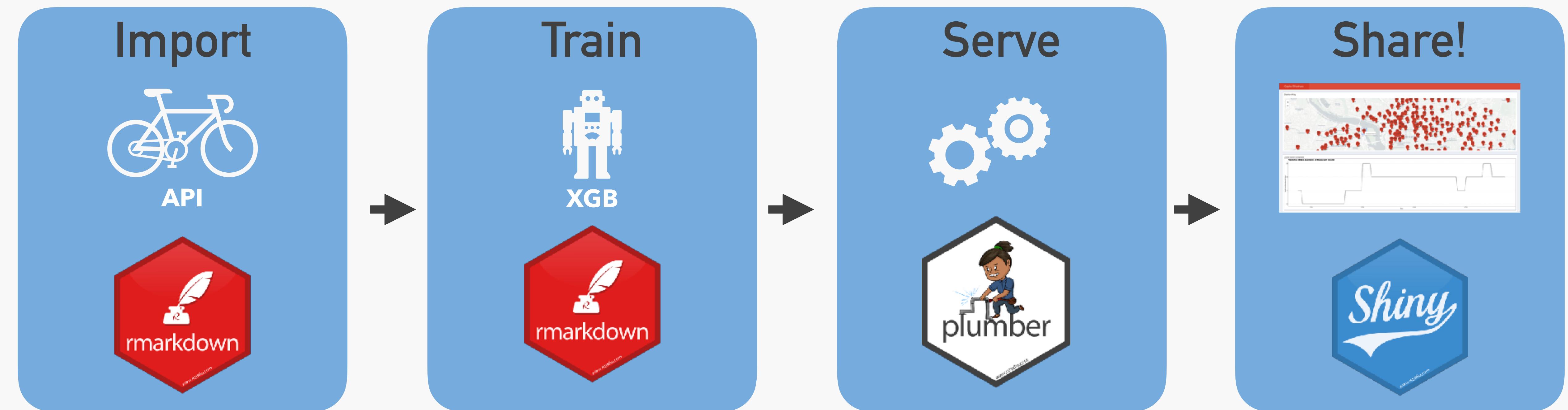
Serve

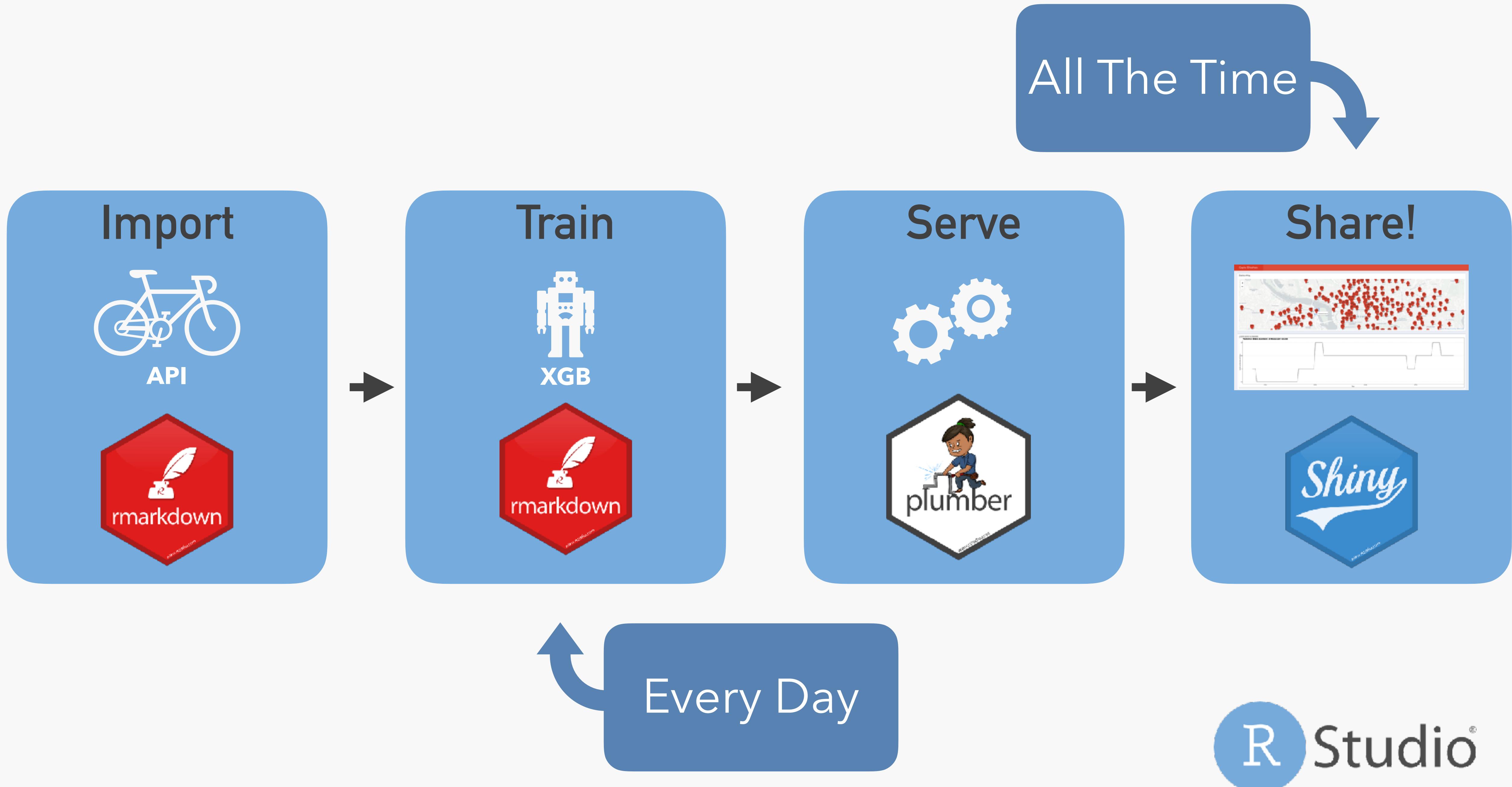


Share!

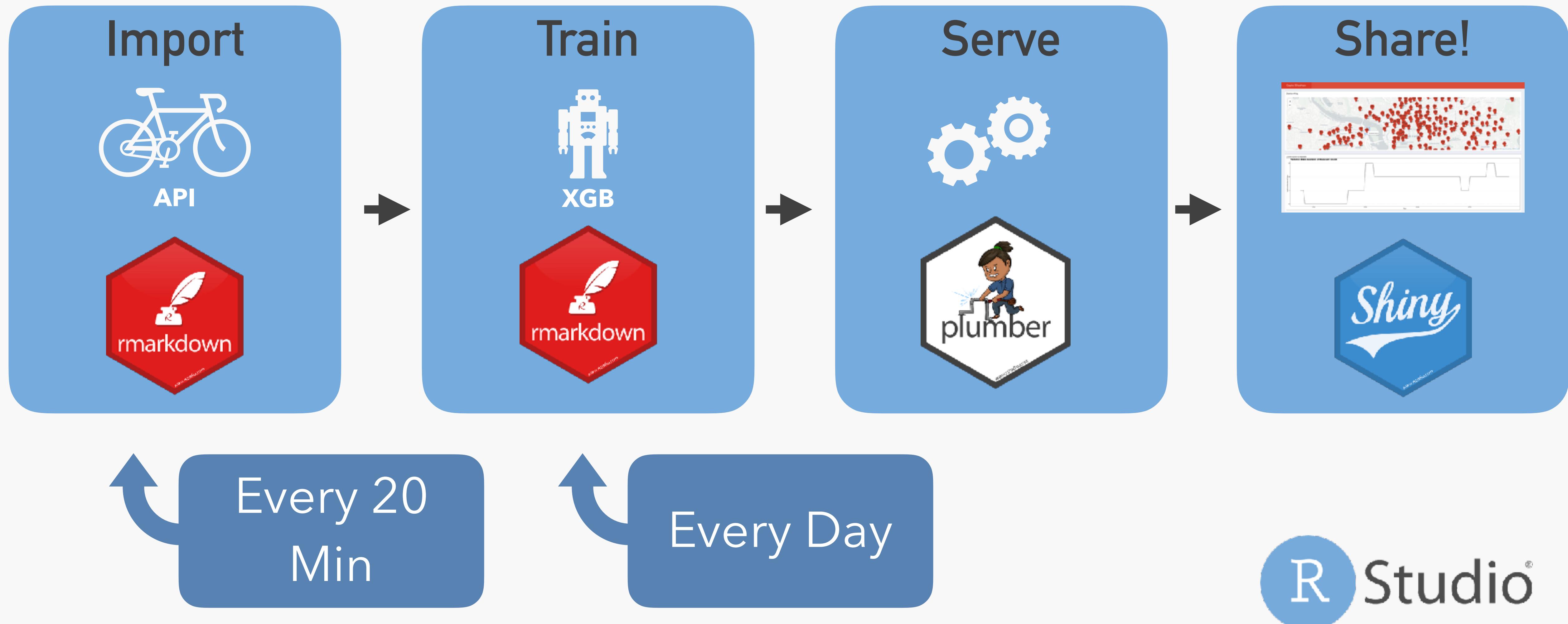


All The Time

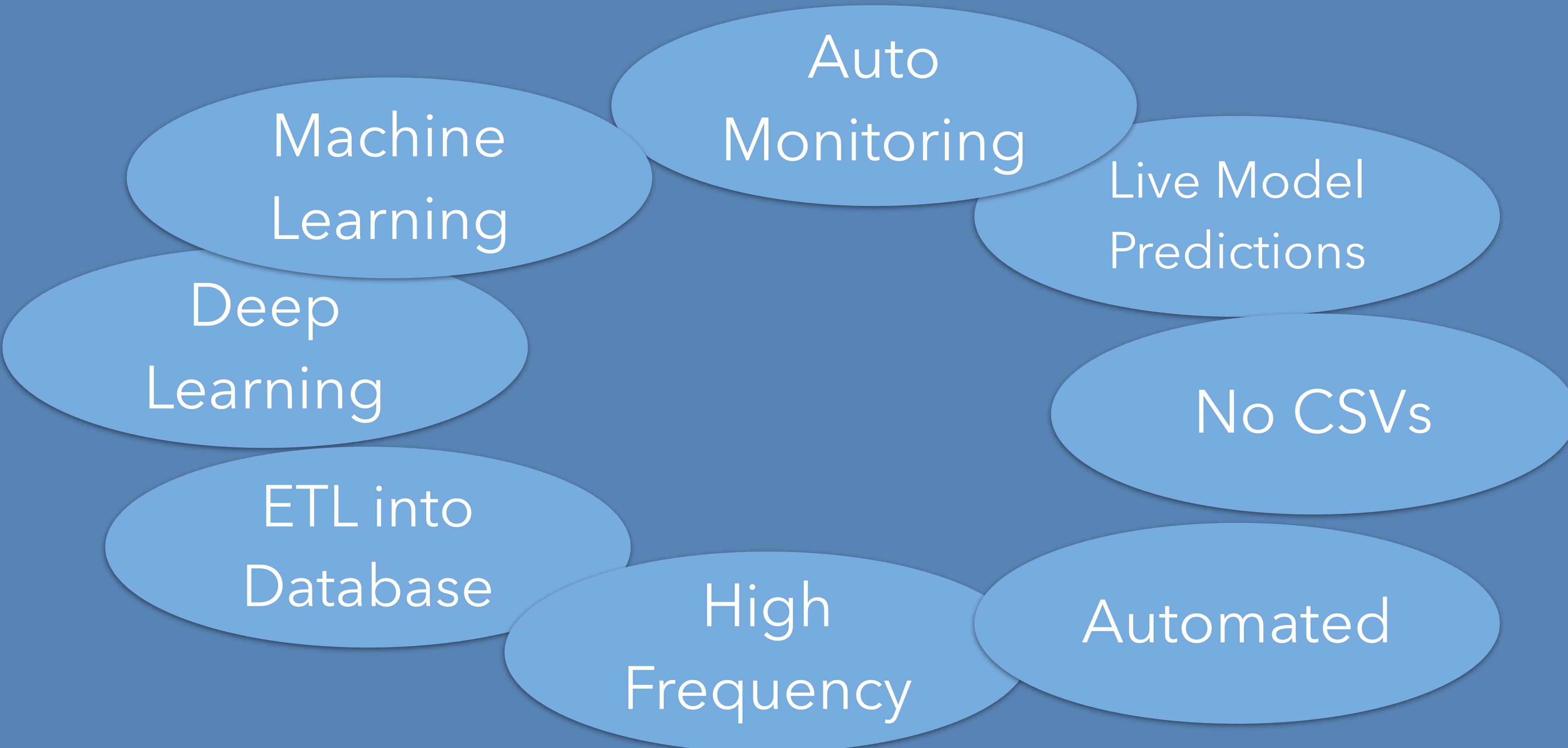


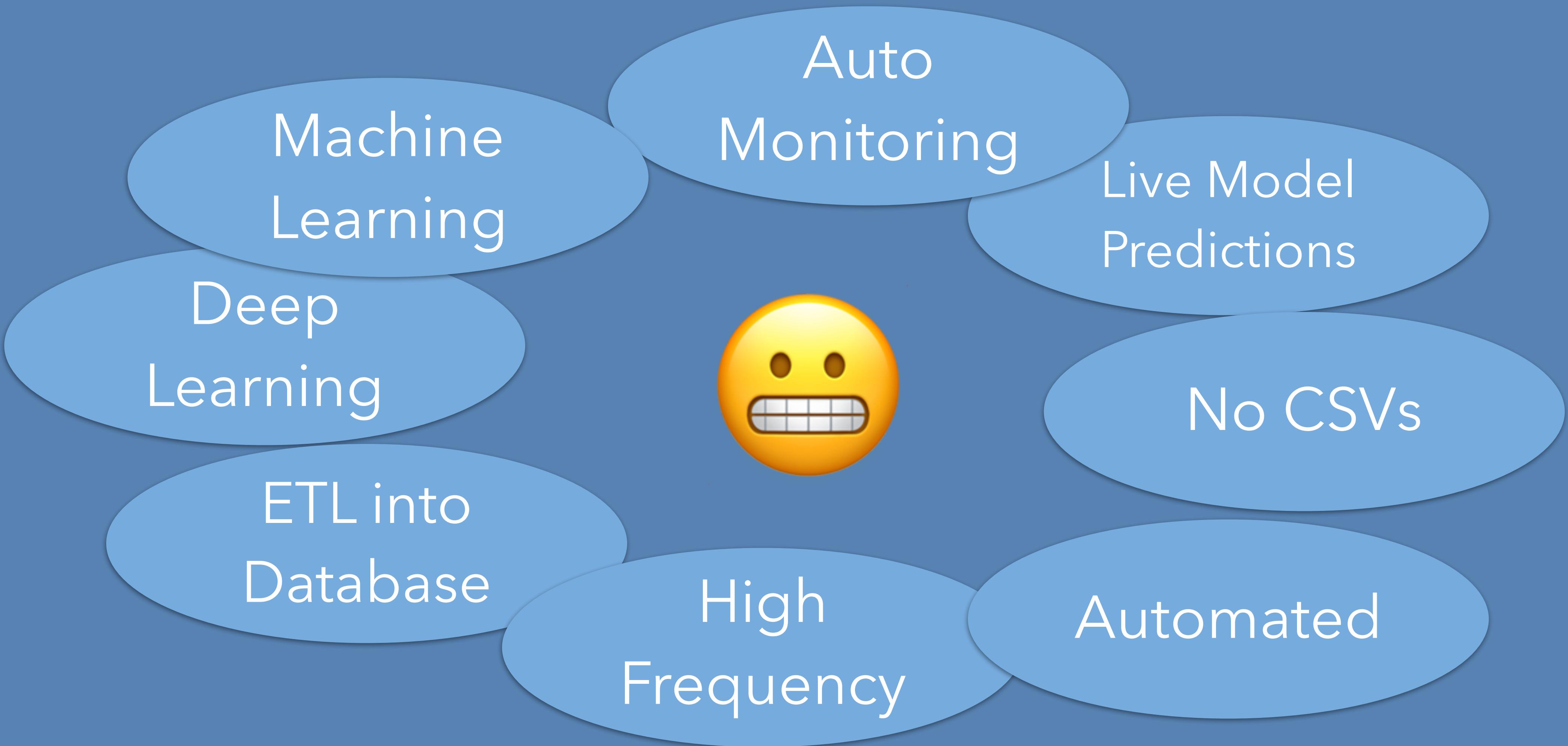


All The Time









**Is my
deployment
sophisticated
enough?**



Machine
Learning

Deep
Learning

ETL into
Database

High
Frequency

Monit

Predictions

No CSVs

Automated

R Studio®

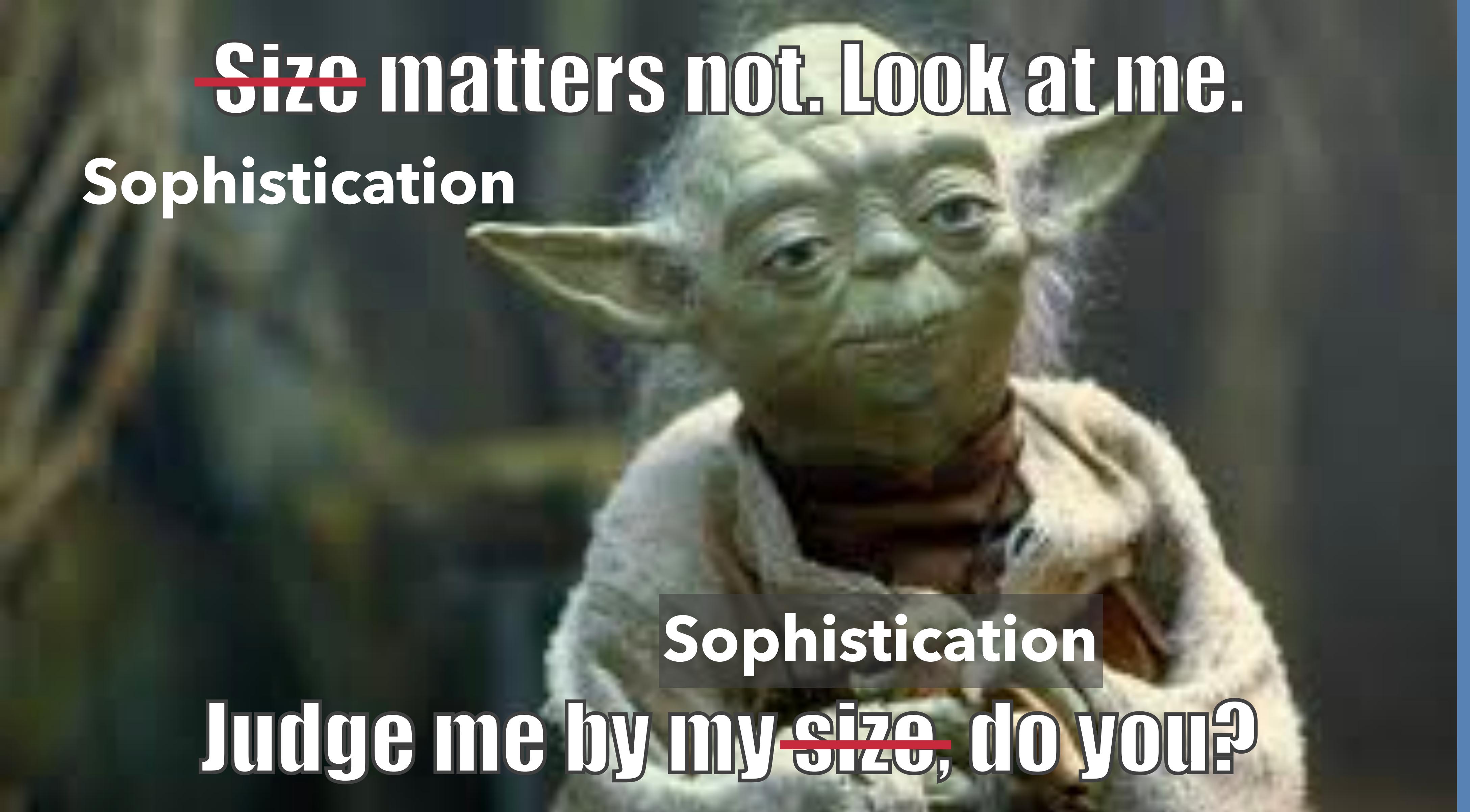


R Studio®



Size matters not. Look at me.

Judge me by my size, do you?



~~Size~~ matters not. Look at me.

Sophistication

Sophistication

Judge me by my ~~size~~, do you?

Increasing Value

Deploying to Increase Value



Deploying to
Increase
Value

 Accessible

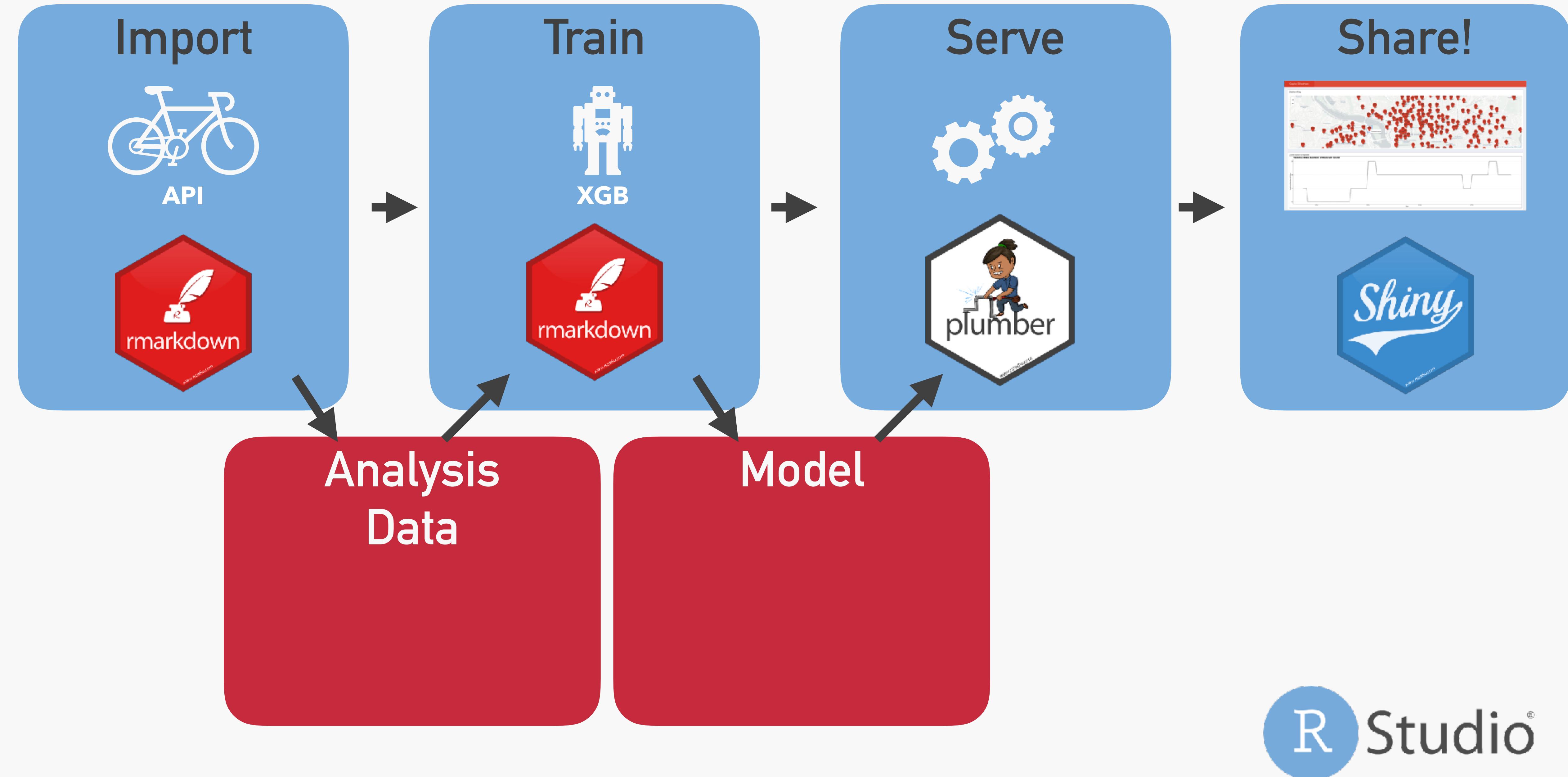


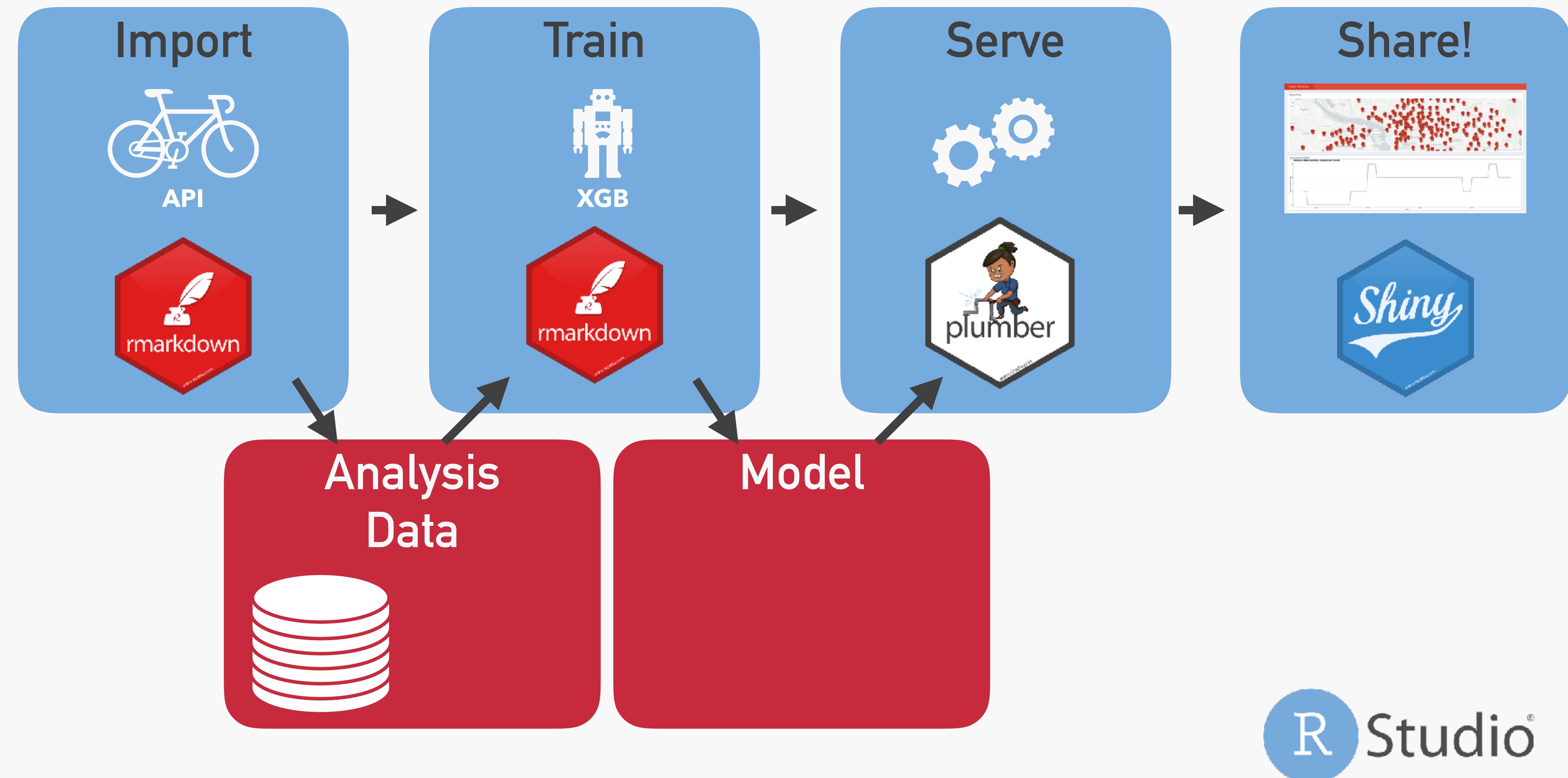
Deploying to Increase Value

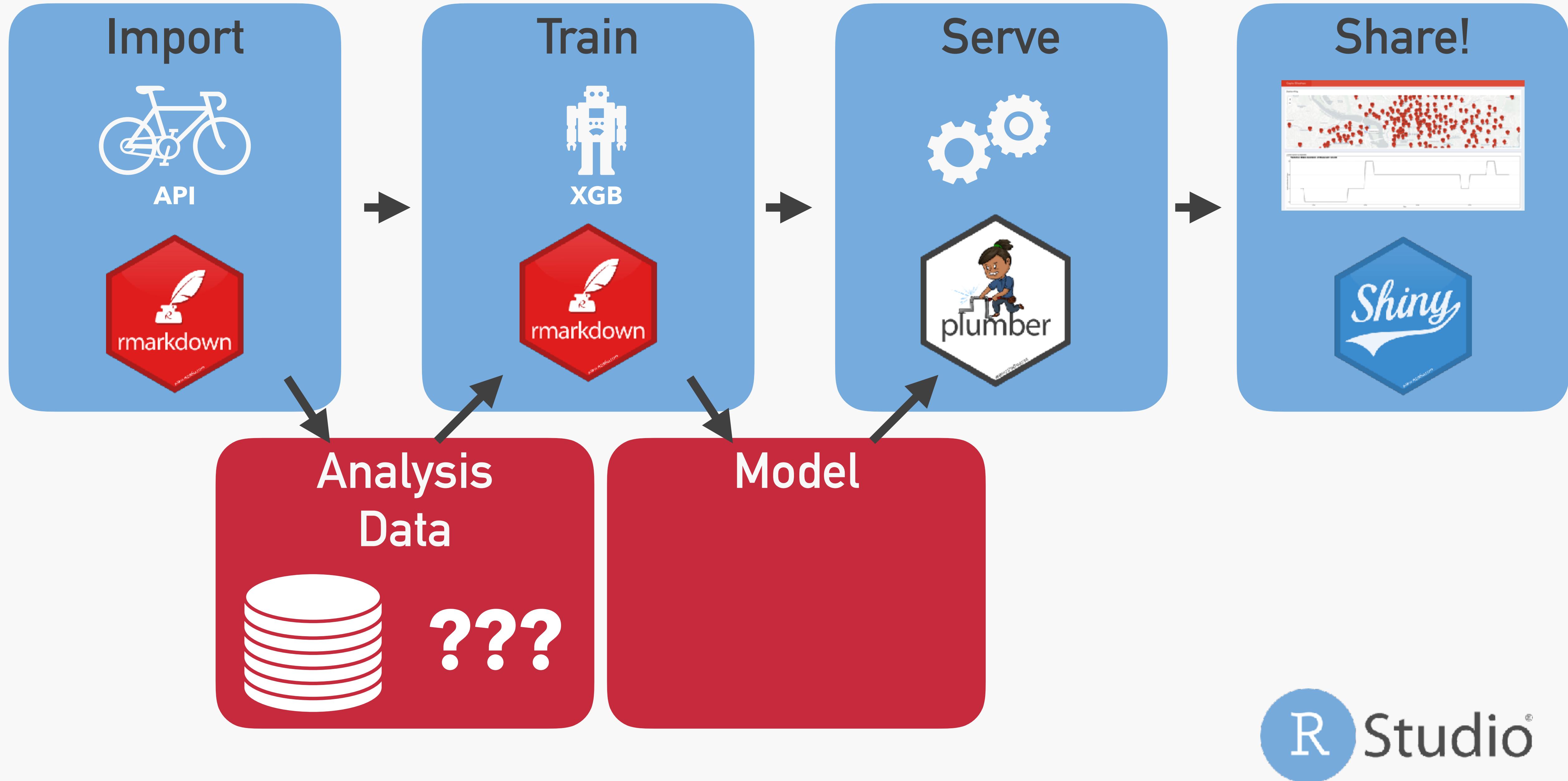
 **Accessible**
 **Reproducible**

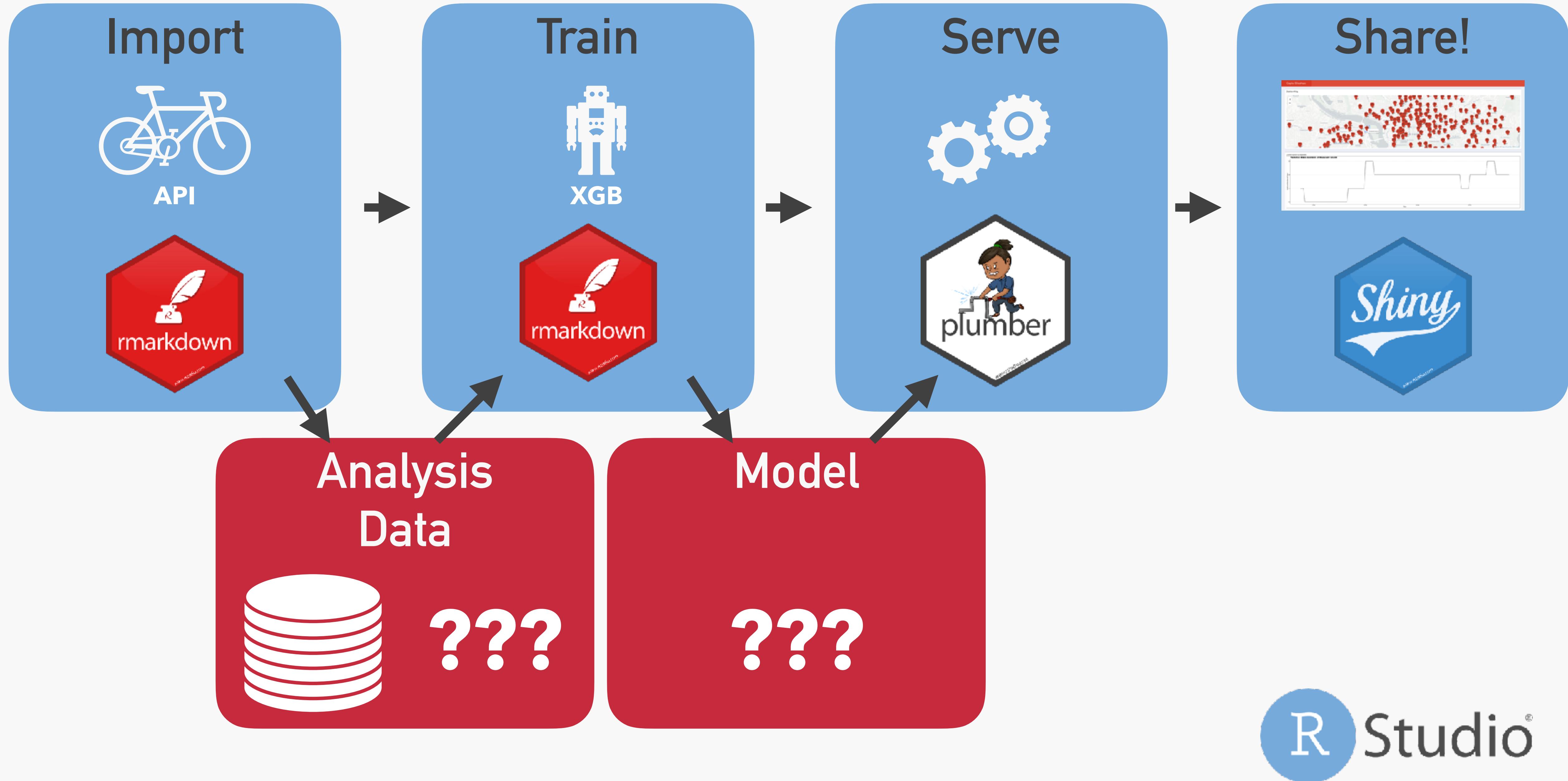
Deploying to
Increase
Value

 Accessible
 Reproducible
 Secure













R Studio®

When hopeless the task seems,





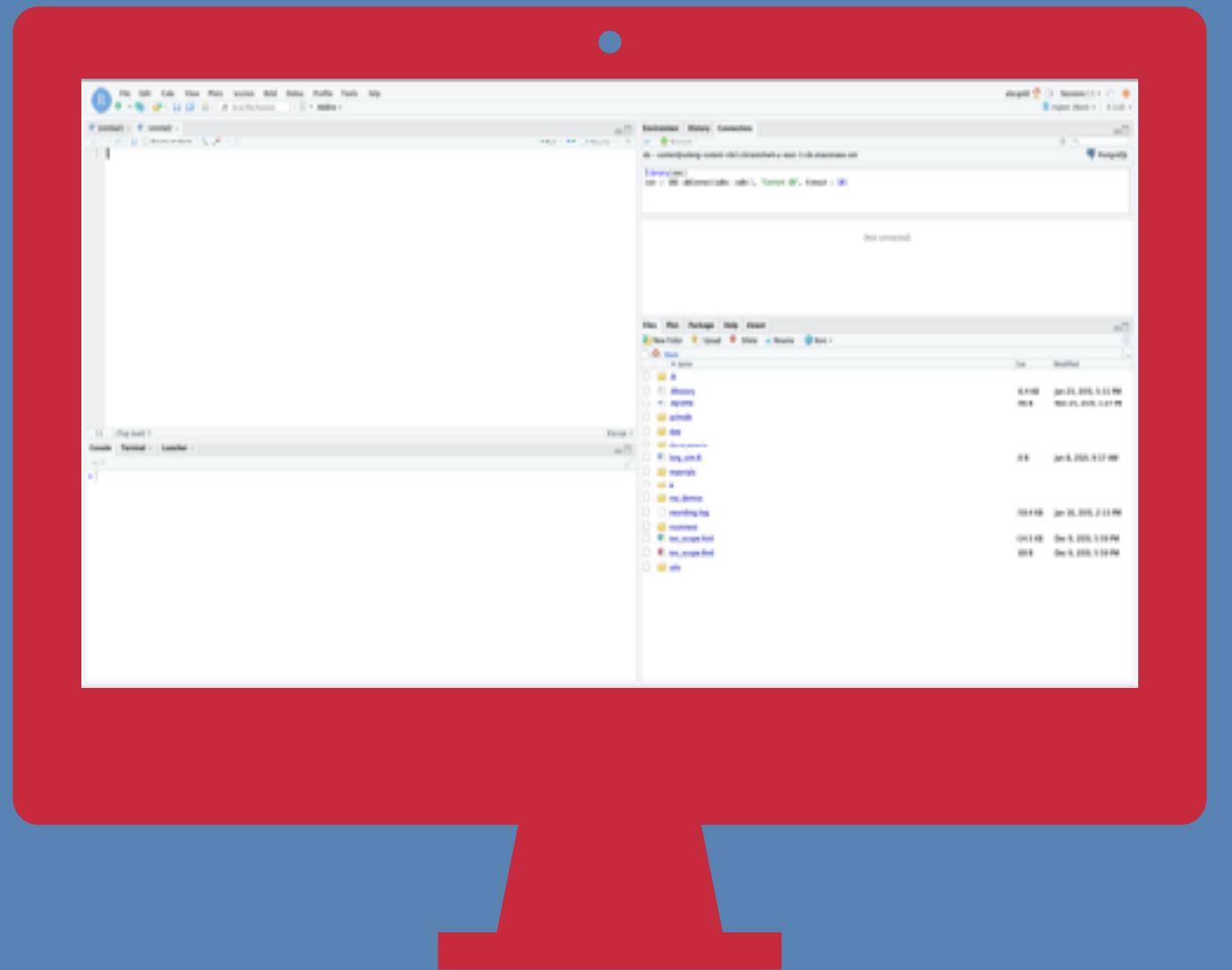
When hopeless the task seems,

**come out with a sweet new R package,
someone will.**



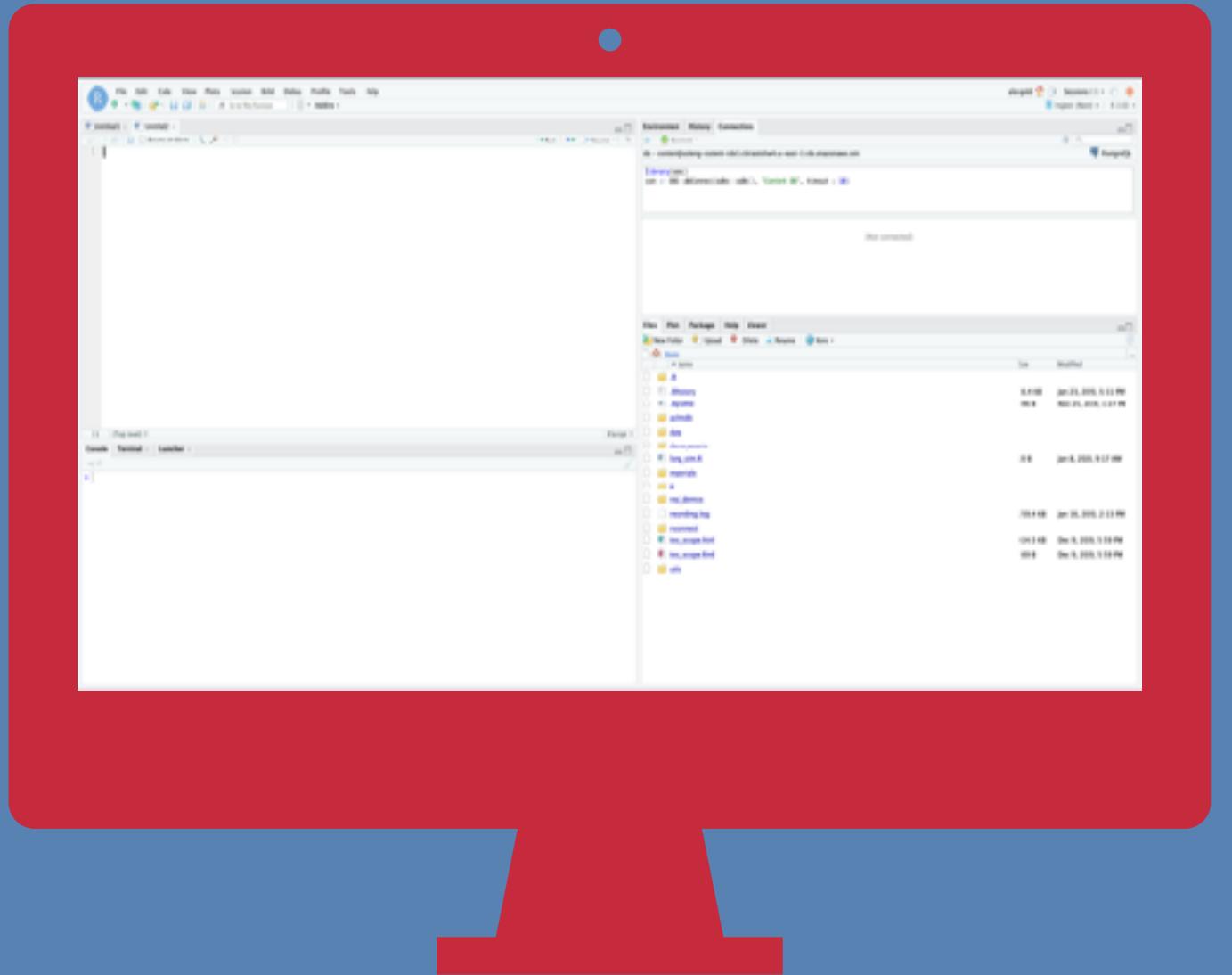






R Studio®

Board



R Studio®

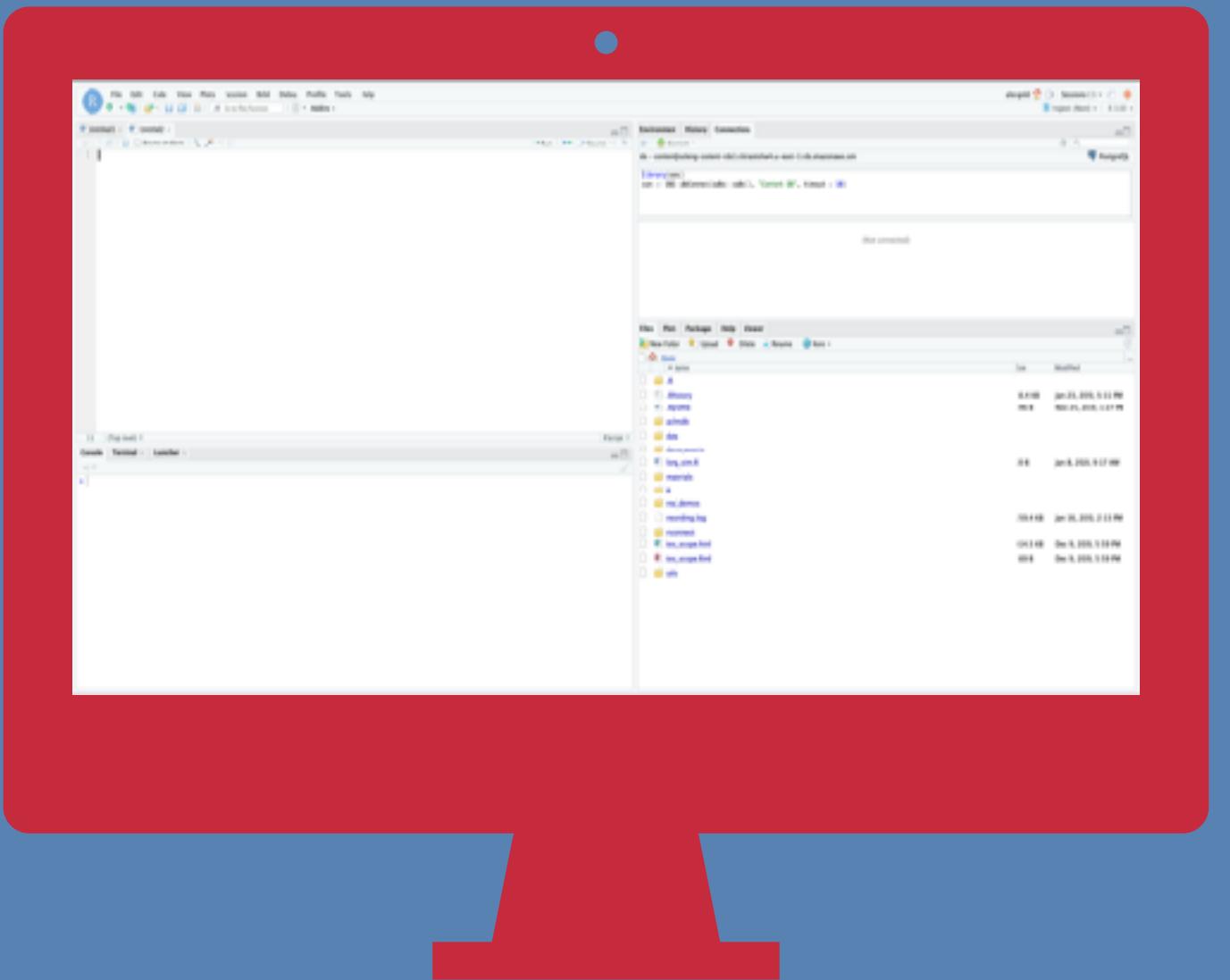
Board
Connect

Kaggle
Github

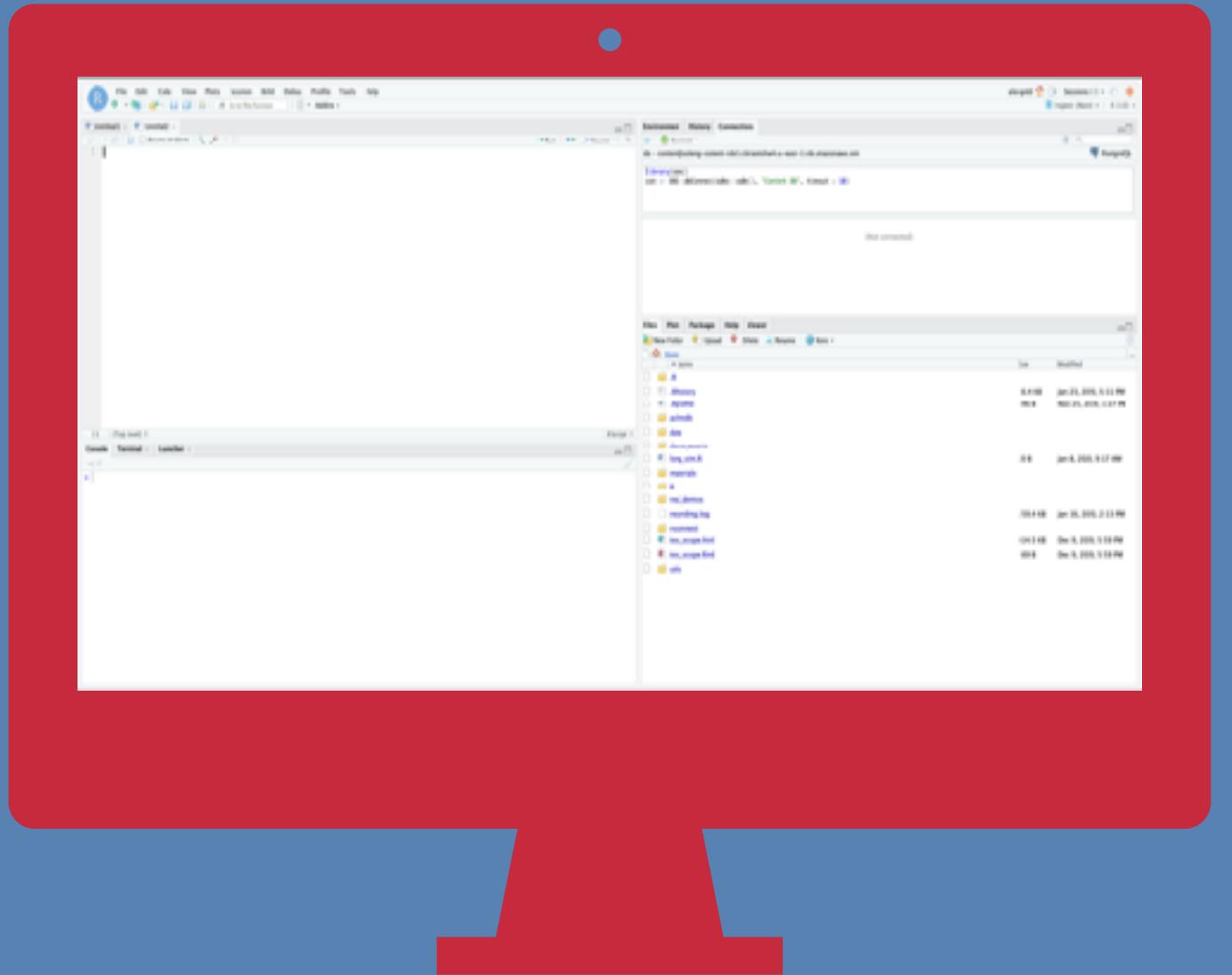
Azure
GCP

S3

Website



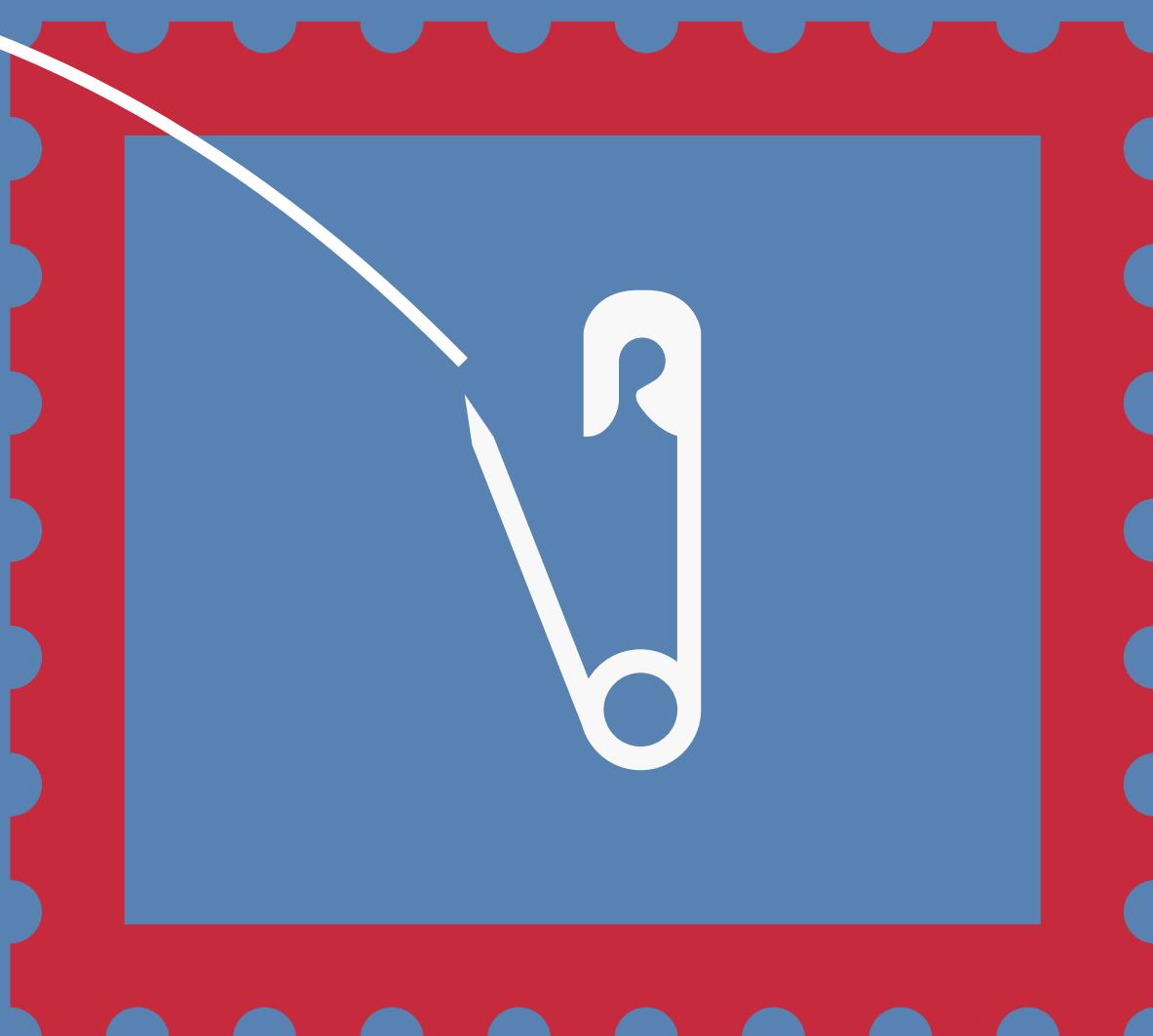
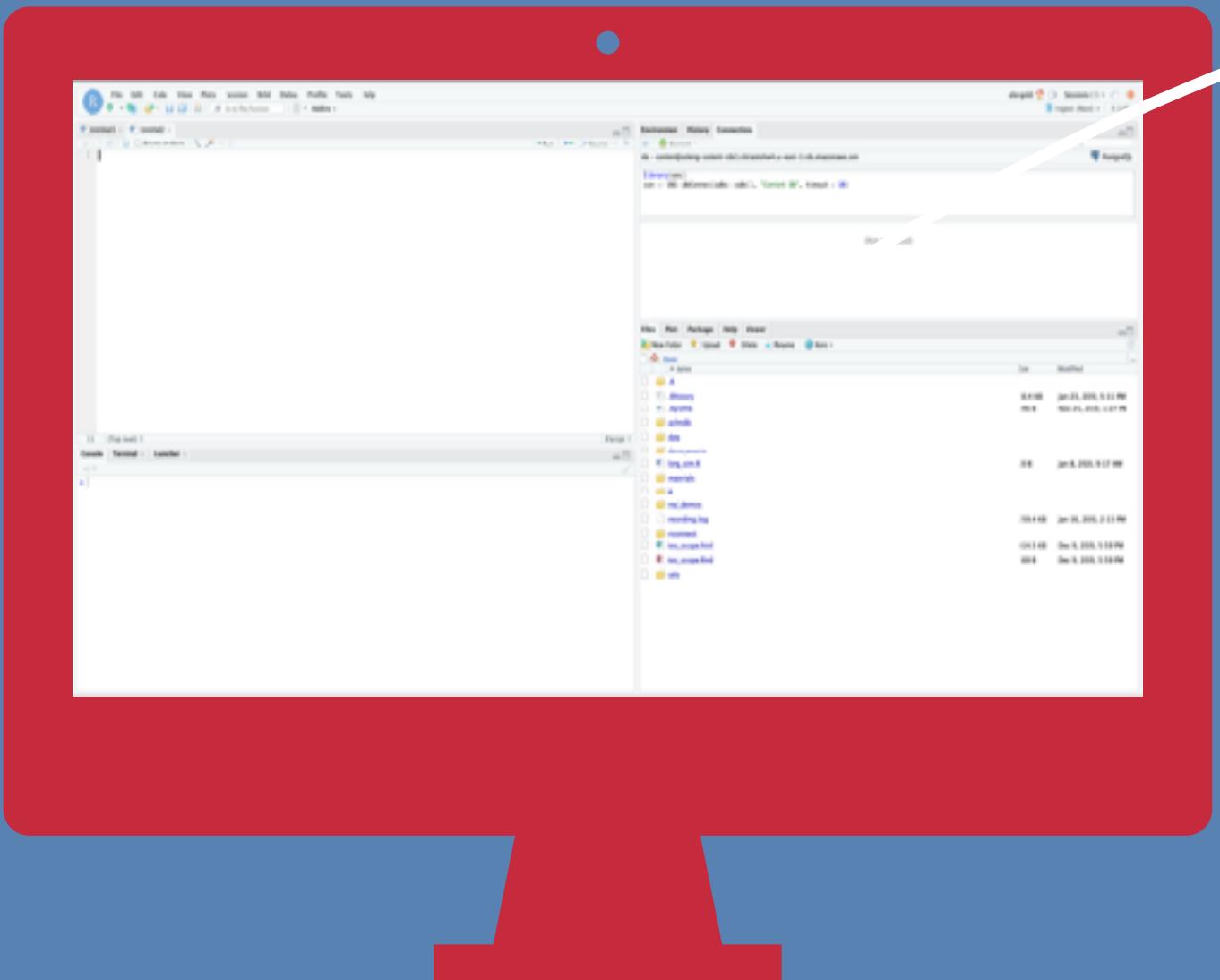
Board



R Studio®

Board

> pins::pin



Board

> pins::pin



> pins::pin_get

Pins Live!







R Studio®

Best considered a cache-ing



mechanism, pins are.

Small



**Small
Reused**



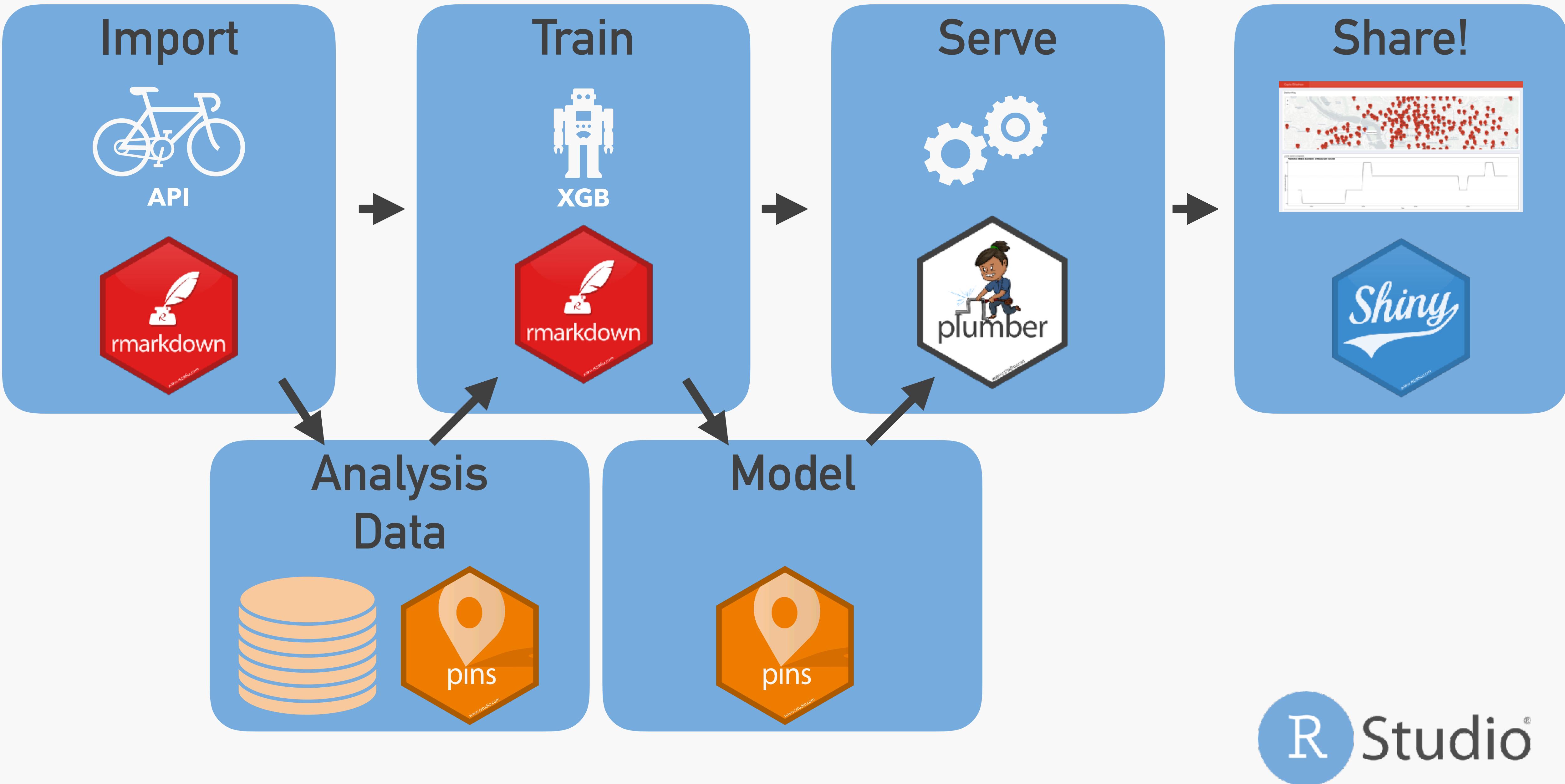
**Small
Reused
Current**



**Small
Reused
Current**

**Pins are for
things you can
re-create.**

Pins in the App



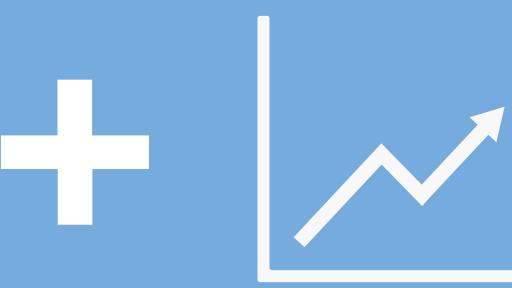
Import



Train



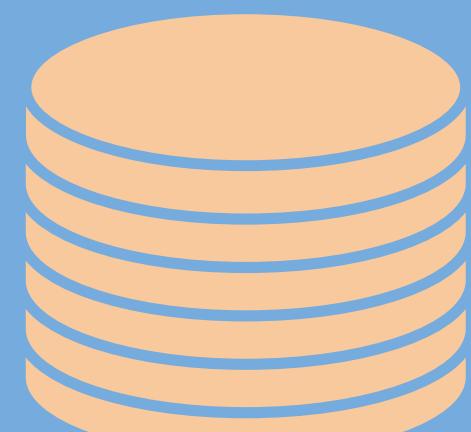
Serve



Share!



Analysis Data



Model



R Studio®

- Accessible
- Reproducible
- Secure

 Accessible

Reproducible

Secure

- Accessible
- Reproducible
- Secure

- Accessible
- Reproducible
- Secure

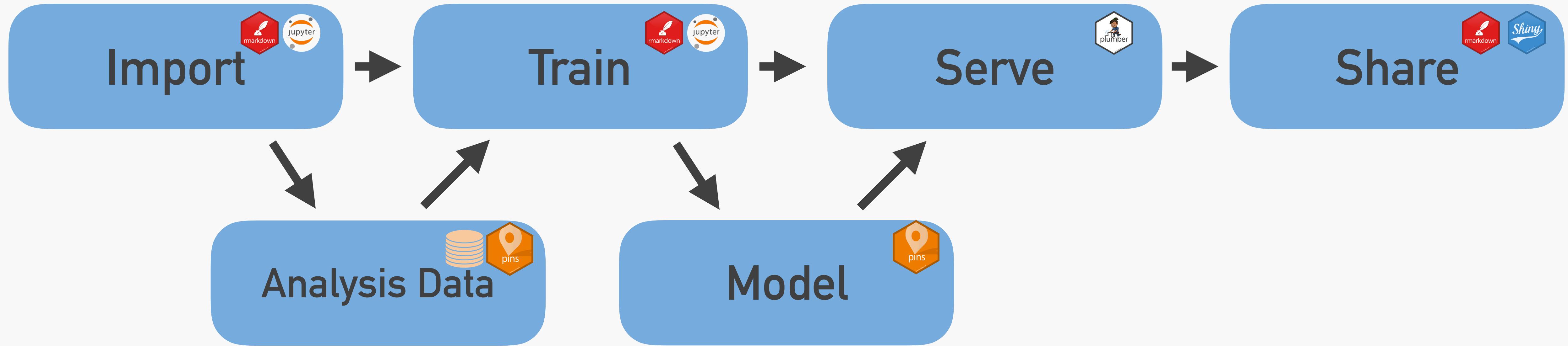


- Accessible
- Reproducible
- Secure



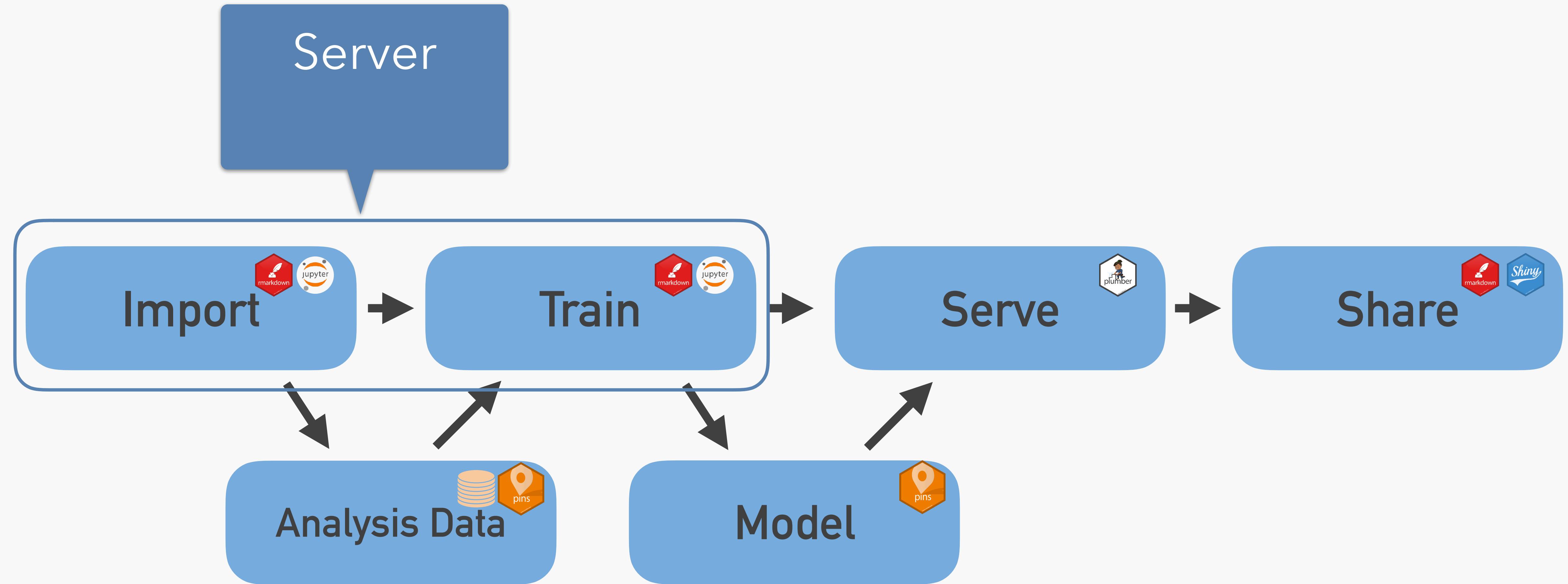
Deploy to the right server,

and secure your data will be.



Open Source Version





Open Source Version



Server
Cron Job

Import



Train



Serve



Share



Analysis Data

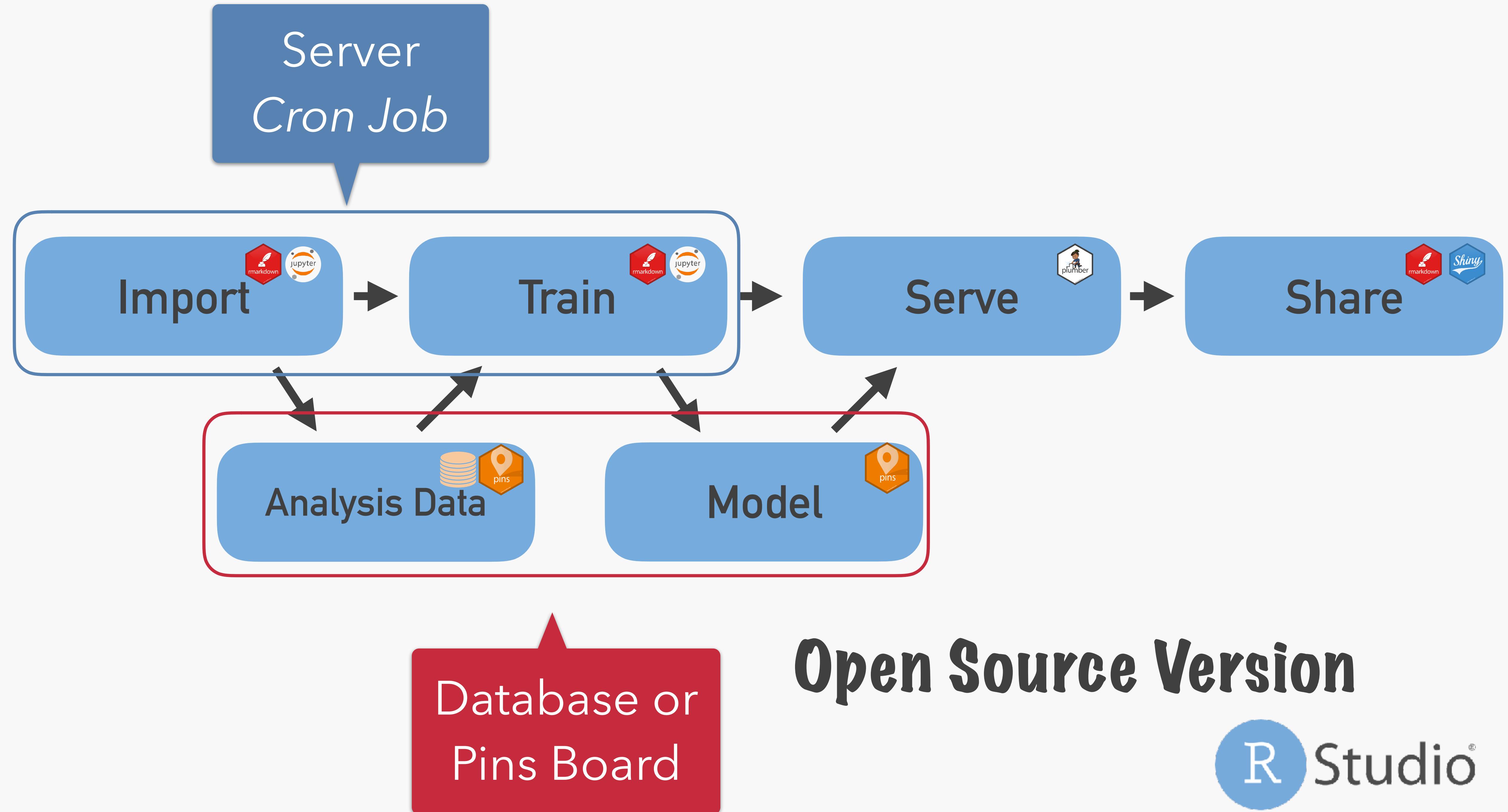


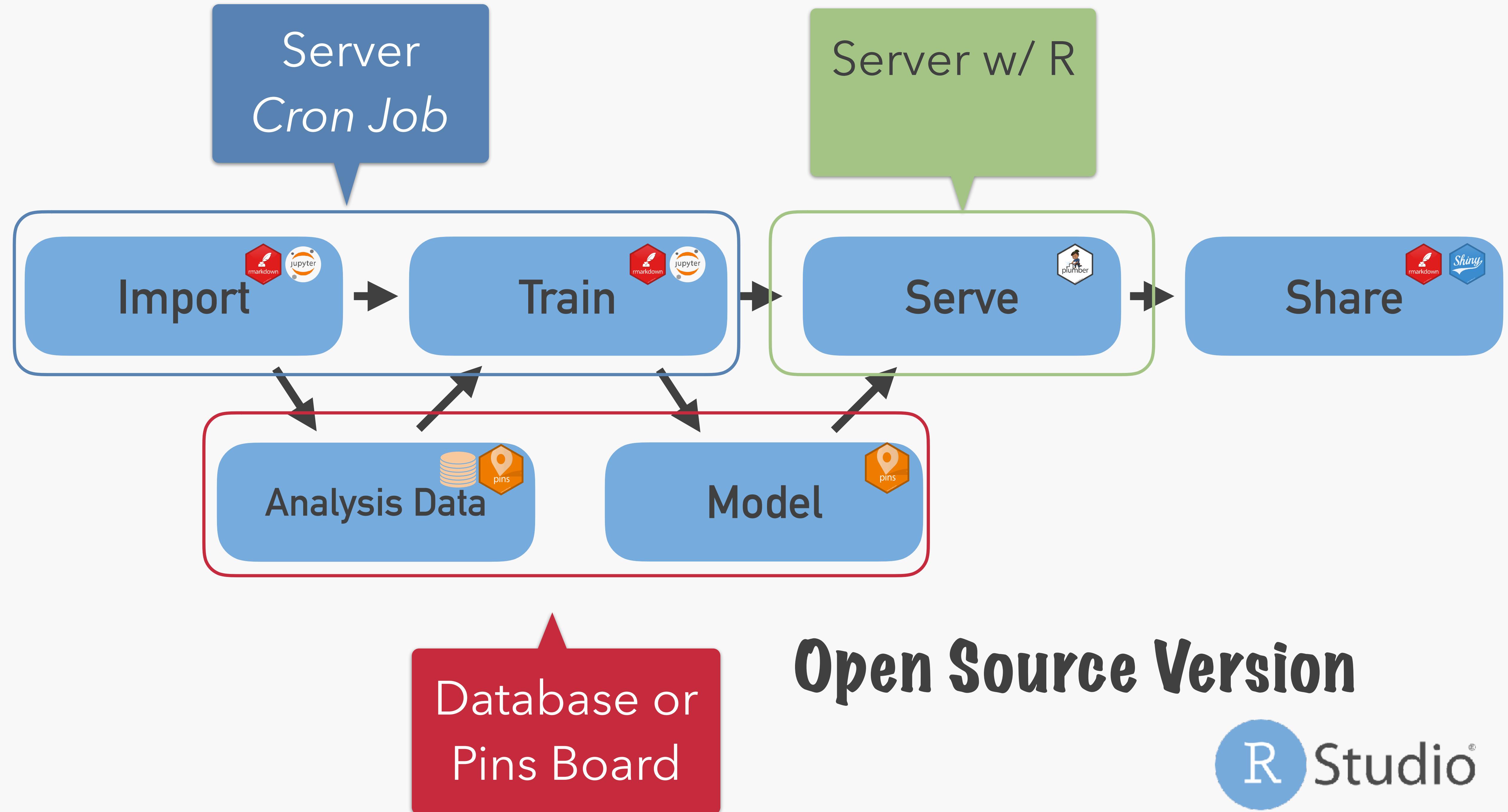
Model

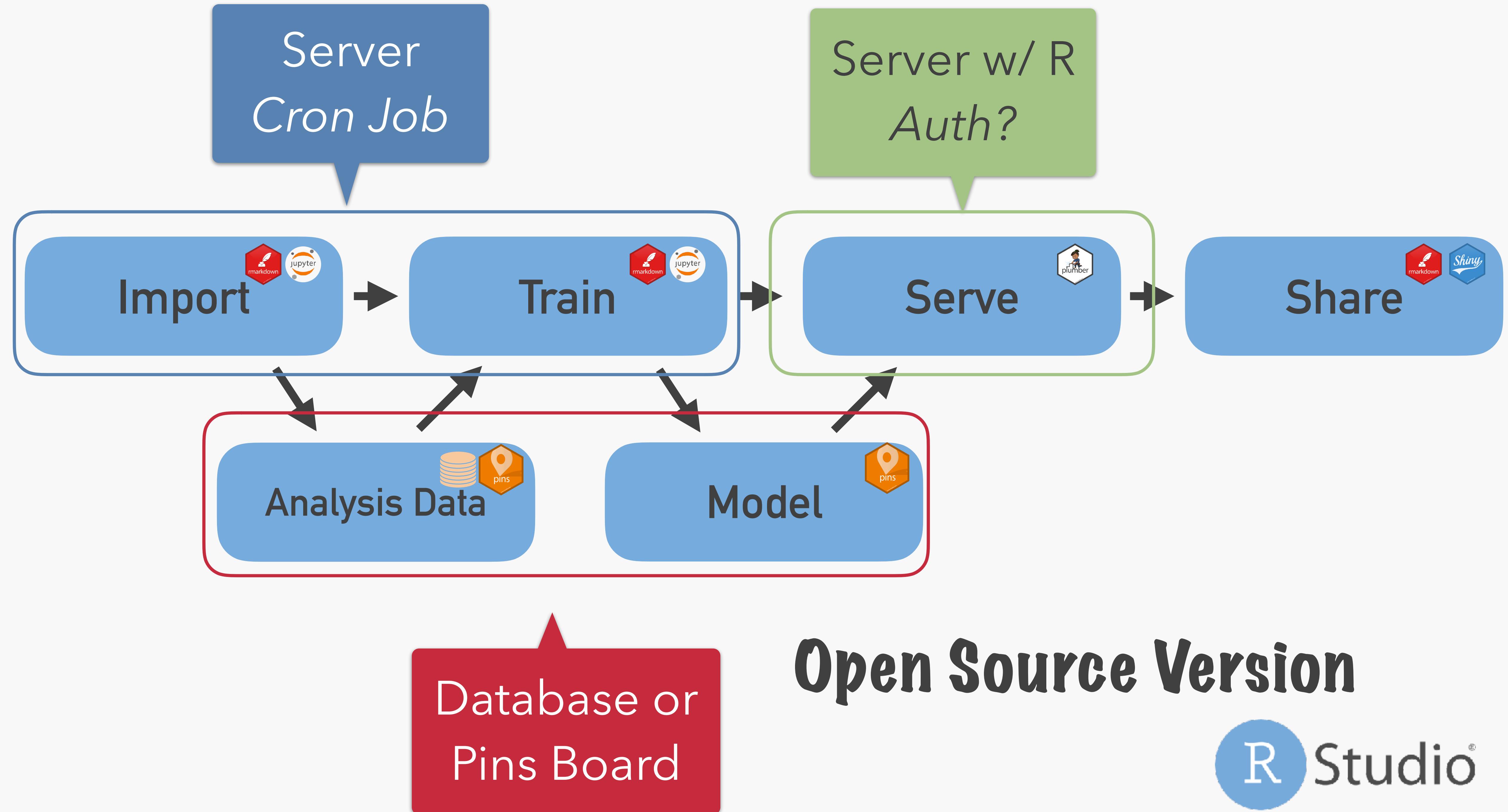


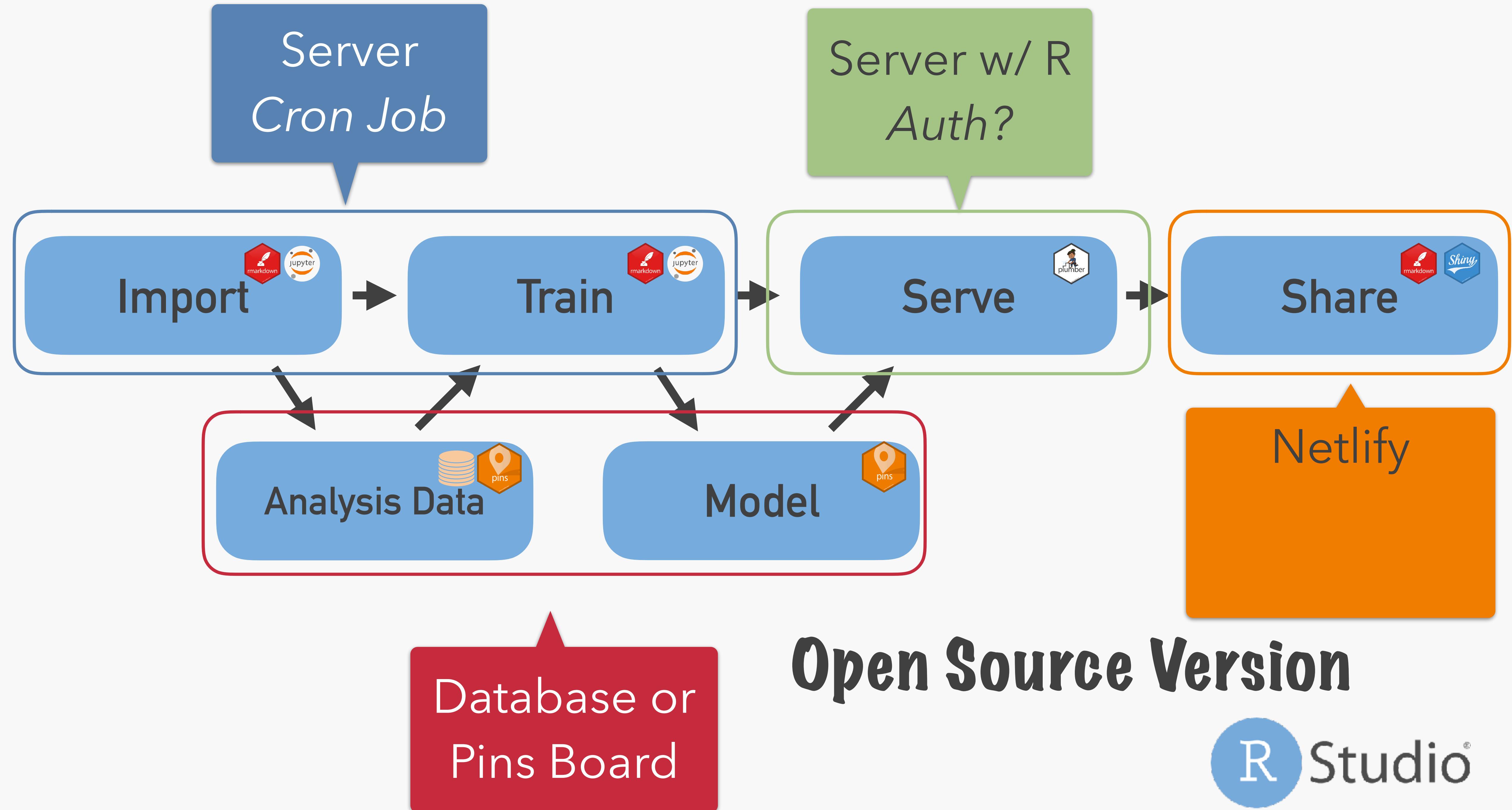
Open Source Version

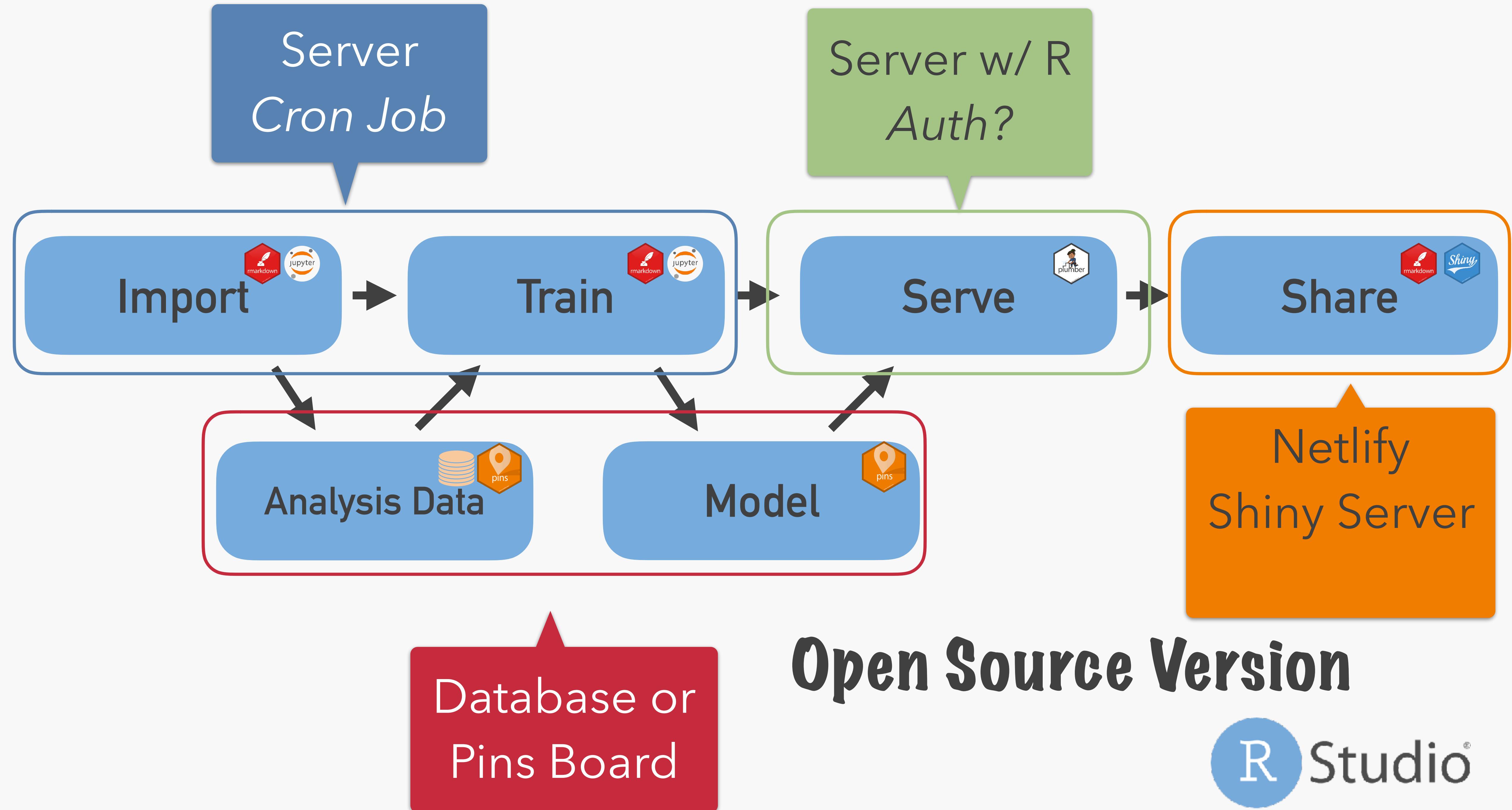


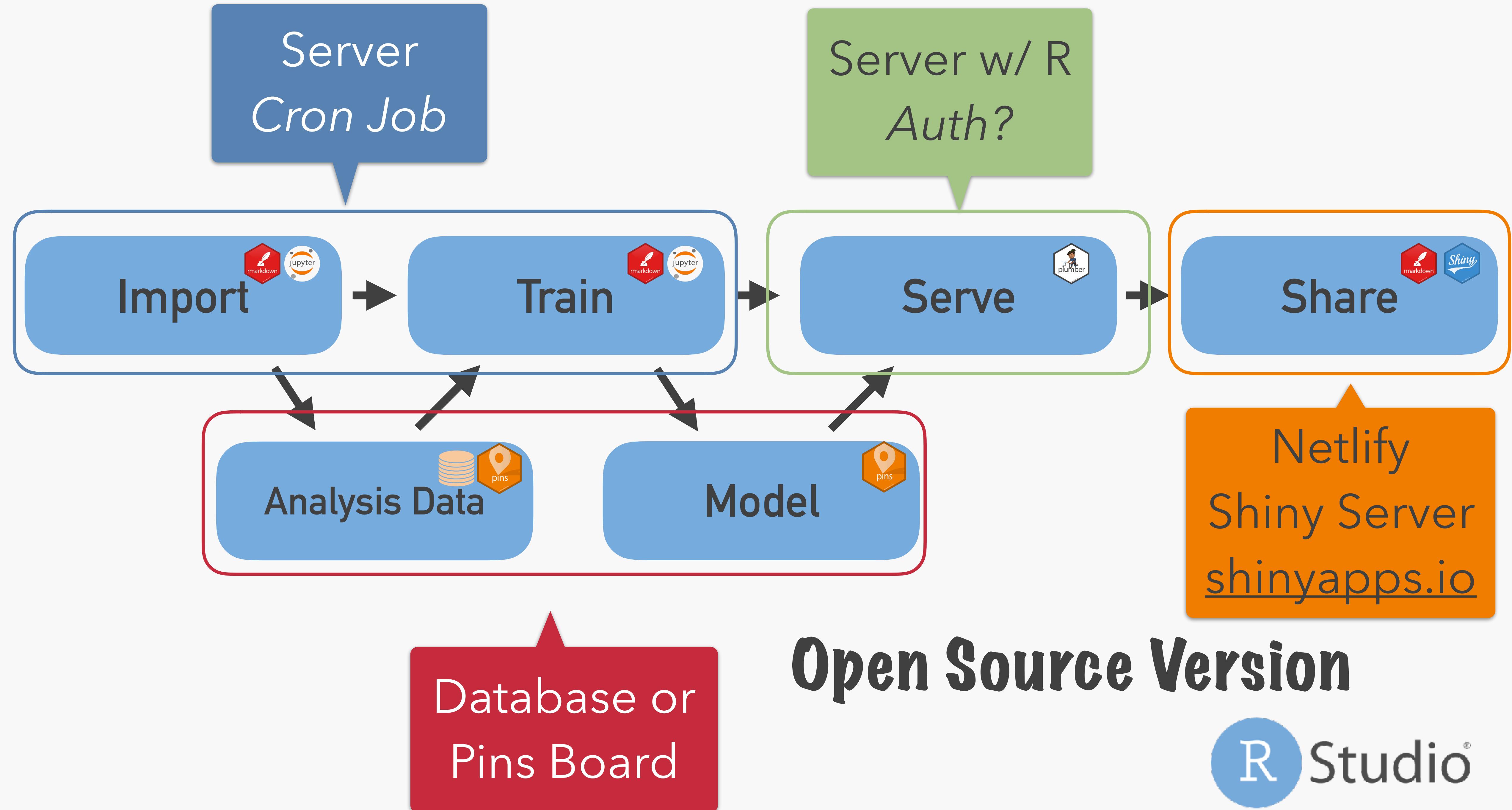


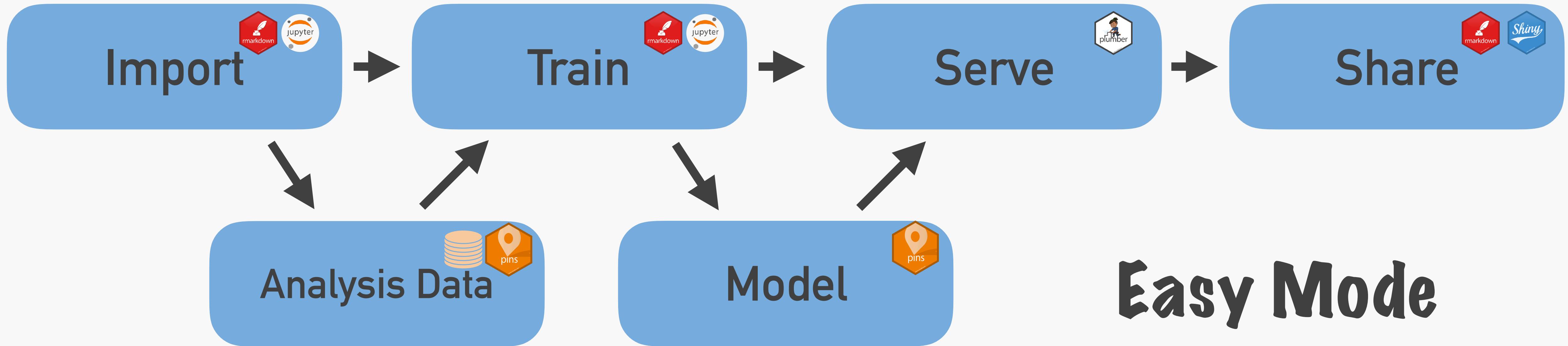


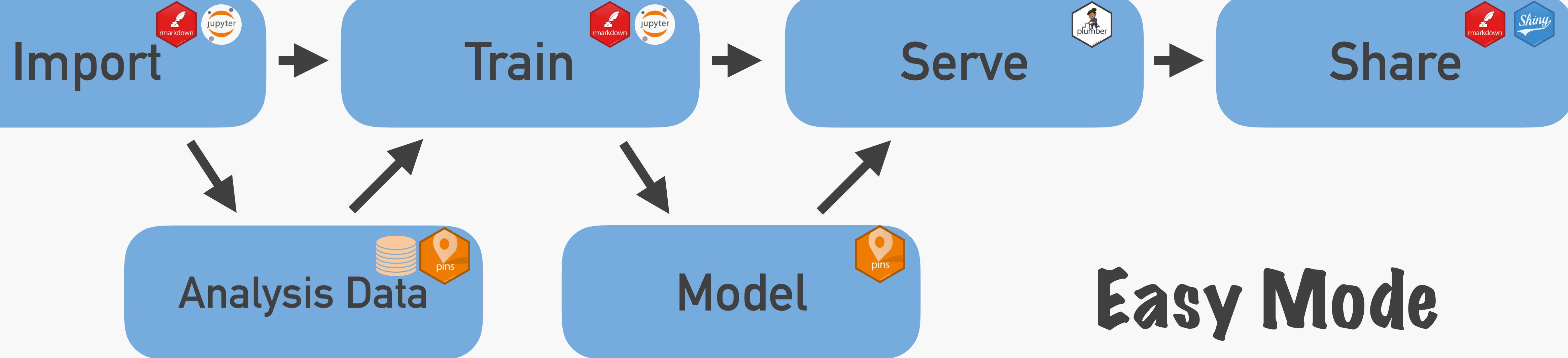












RStudio Connect

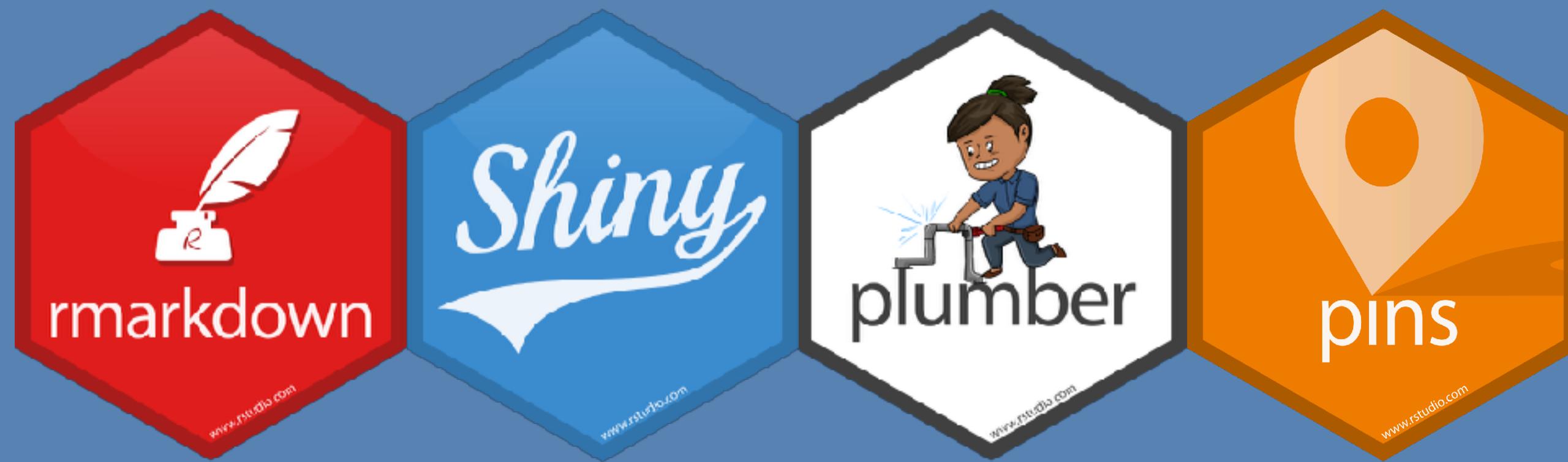




- Accessible
- Reproducible
- Secure



- Accessible
- Reproducible
- Secure



 @alexkgold
rstd.io/deploy2020

