



Data



Analytics



Decisions



Impact

sas viya

Agenda



Rune Nielsen, PhD

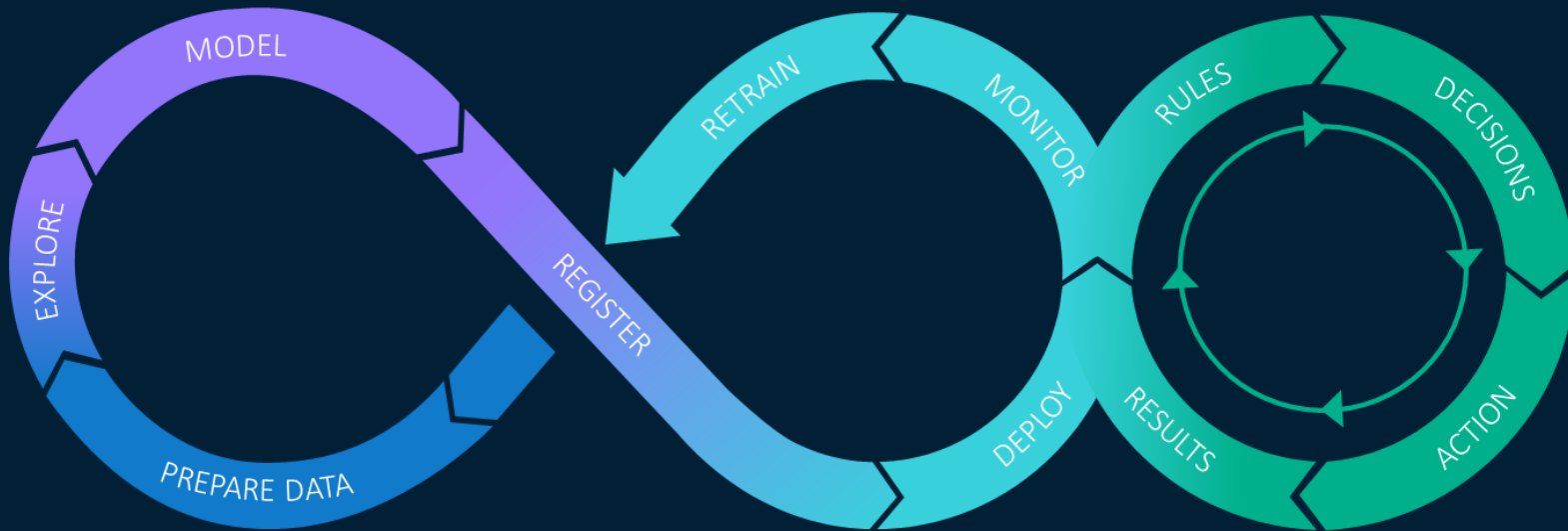
Data scientist & AI
specialist at SAS Institute

- R integration with Viya
- Demo



R and Viya

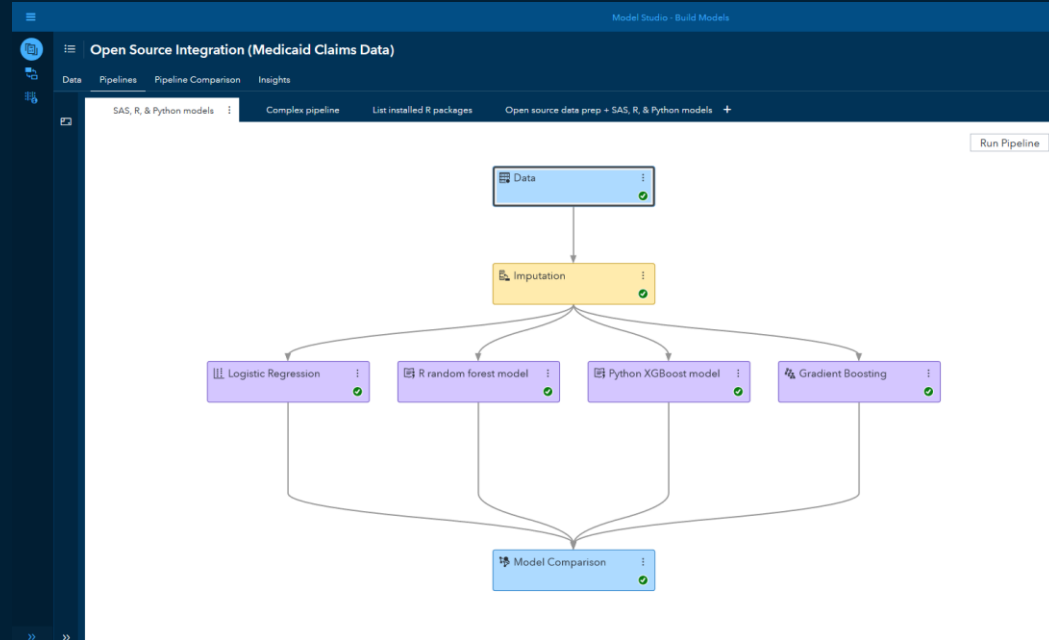
The analytics lifecycle



SAS and Open Source

SAS users can...

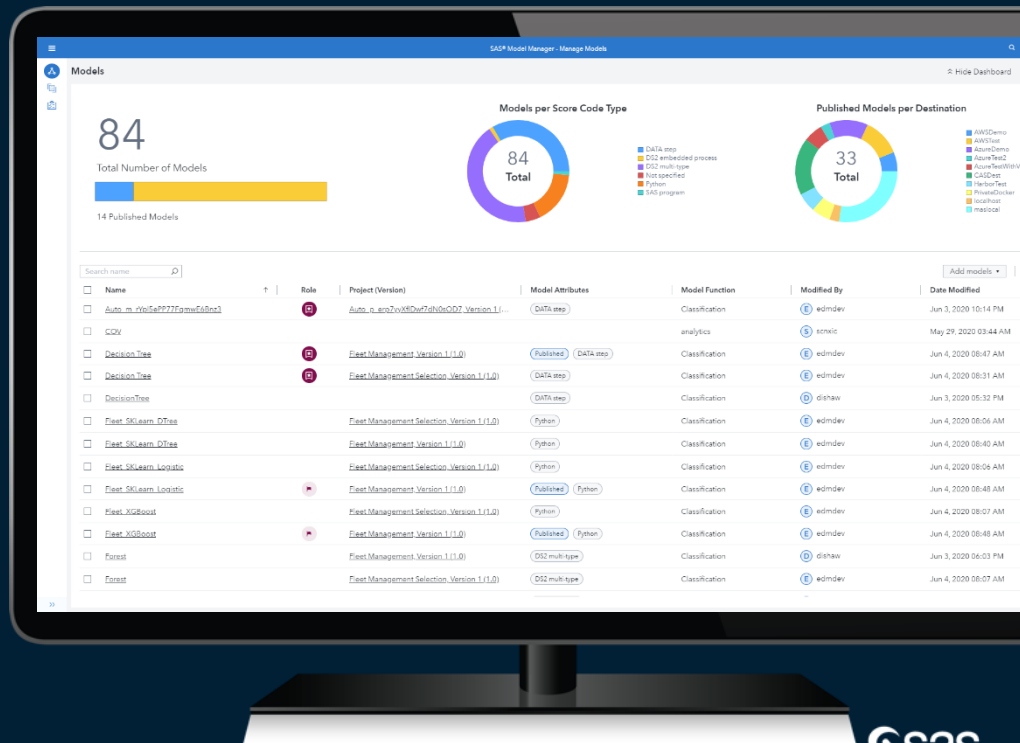
- Leverage open-source models with native R or Python code (no translation needed)
- Compare SAS and Open Source models in one modeling pipeline



Register

Open source coders can...

- Register models in model manager
- Work within preferred GUI
- Seamlessly integrate SAS models into open source workflows
- Use familiar syntax to access *compute power of CAS engine*

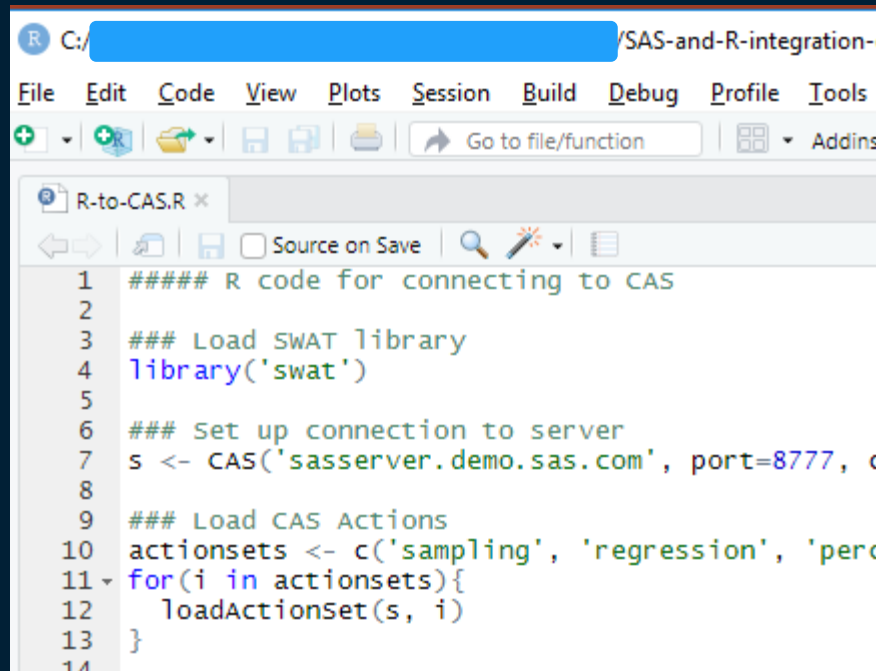


SAS and Open Source

Leveraging CAS Compute Resources from an R workstream

Open source coders can...

- Register models in model manager
- Work within preferred GUI
- Seamlessly integrate SAS models into open source workflows
- Use familiar syntax to access *compute power of CAS engine*



The screenshot shows an RStudio window with the title bar 'R C:/[redacted]/SAS-and-R-integration-'. The menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, and Tools. The toolbar contains icons for adding files, saving, and other standard RStudio functions. The active pane is a script editor titled 'R-to-CAS.R'. The code in the editor is as follows:

```
1 ##### R code for connecting to CAS
2
3 ### Load SWAT library
4 library('swat')
5
6 ### Set up connection to server
7 s <- CAS('sasserver.demo.sas.com', port=8777, c
8
9 ### Load CAS Actions
10 actionsets <- c('sampling', 'regression', 'perc
11 for(i in actionsets){
12   loadActionSet(s, i)
13 }
14
```


SAS value propositions

Advantages for the R-user



Bring your own tool

Increased collaboration

The Viya infrastructure

The CAS engine and language



Use R, both in visual interfaces and through e.g. RStudio

Both developed IP and model outputs can be shared among different users

Easy path to production

Performance at scale, machine learning and one common language

RStudio demo

