



Python in R

February 18, 2025

Python in R

Today's Co-organizer and Speaker:

Kewalin Samart

kewalin.samart@cuanschultz.edu

Adapted materials from R-Ladies Baltimore
developed by [Tiffany Timbers, PhD](#)



Today's Sponsor



The Norman Lab, DBMI

The Norman Lab researches immunogenetics, which is the study of polymorphic molecules that have critical roles during infection control, reproduction, cancer, and immune-mediated disease. We study the genetic and functional immune diversity of indigenous groups worldwide, including African hunter-gatherers, Australians and Pacific Islanders. We also study ancient humans and perform comparative evolutionary analyses of multiple other species.

Who We R!?



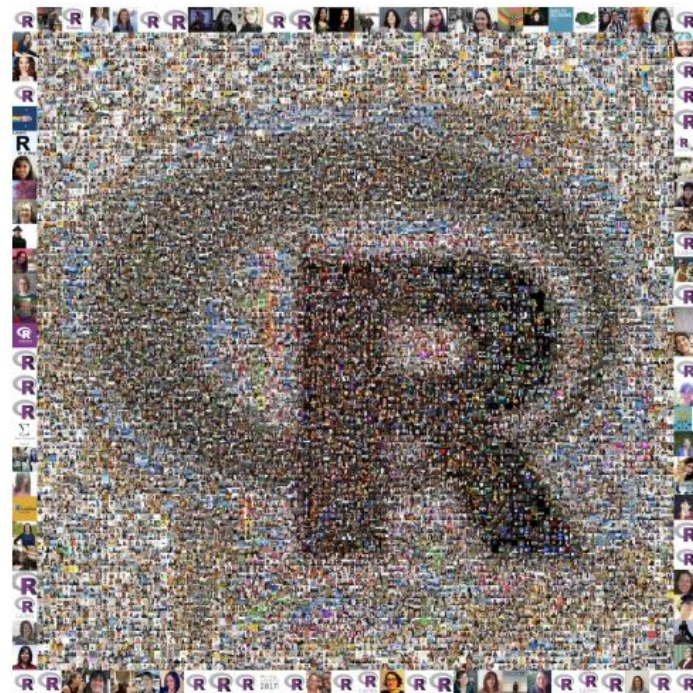
R-Ladies Kick-off Event on Jul 25, 2024



RLA Co-organizer team: Jade, Keenan, Janani, Kewalin, Stacey (left to right)



Worldwide organization that promotes **gender diversity** in the **#rstats** community via meetups and mentorship in a **friendly** and **safe** environment



Part of **R-Ladies - 240 groups**

R-Ladies Aurora

Aurora, CO, USA

69 members · Public group

Organized by **R-Ladies Global** and **4 others**

New Members?

1. Join us, RSVP for events on **Meetup**

<https://www.meetup.com/rladies-aurora/>

2. Join our discussion forum on **Discord**

<https://bit.ly/RLA-discord>



The screenshot shows the Meetup page for R-Ladies Aurora. At the top, there's a world map with a red pin in Colorado and the text 'We are here!'. Below the map is a purple banner that says 'Welcome to R-Ladies Aurora! a local chapter of R-Ladies Global in Colorado, USA'. To the right of the map, there's a sidebar with the group's name 'R-Ladies Aurora', a 5-star rating, location 'Aurora, CO, USA', 160 members, and a 'Contact members' button. Below the banner, there's a navigation bar with links for 'About', 'Events', 'Members', 'Photos', 'Discussions', and 'More'. To the right of the navigation bar are buttons for 'Create event' and 'Manage group'. The main content area is divided into three sections: 'What we're about' with a mission statement, 'Upcoming events (2)' with details for a 'Monthly social + networking' event on Feb 4, 2025, and 'Organizers' listing 'R-Ladies Global and 4 others'. At the bottom right, there's a 'Members (160)' section showing a grid of member avatars, some with initials like KV, AS, TB, KM, and SP. A 'You're going!' button is visible at the bottom of the event details.

Part of **R-Ladies - 244 groups**

R-Ladies Aurora

★★★★★ (13)

Aurora, CO, USA

160 members · Public group

Organized by **R-Ladies Global** and **4 others**

Contact members

Share:

About Events Members Photos Discussions More

Create event Manage group

What we're about

Mission
R-Ladies is a worldwide organization that promotes gender diversity in the
[Read more](#)

Upcoming events (2)

See all

TUE, FEB 4, 2025, 5:00 PM MST

Monthly social + networking

P12-7042 CCPM Large Conference Room
(7th floor) | Anschutz Health Sciences
Building , Aurora, CO

Hi all,
These events are open to all R-Ladies and allies.
We want to host monthly events focused on community building and...

11 attendees Manage You're going!

Organizers

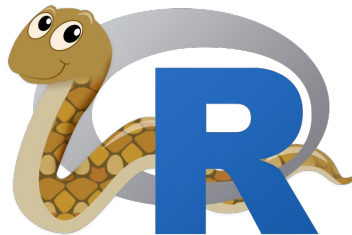
R-Ladies Global and 4 others
[Message](#)

Members (160)

Grid of member avatars and initials: KV, AS, TB, KM, SP

Spring' 25 Workshops

- **Monthly social + networking events**
- **Python in R**
- How to build a website using R?
- Data wrangling
- ... Any suggestions?



Today! Feb 18, 2025

Intro to {reticulate}

+ Choosing the "best" software tool or language for the job

Demos:


- Set-up {reticulate} after installing *miniconda*
- Run Python repl in RStudio
- Create, edit and run Python scripts in RStudio
- Weaving Python into R Markdown




– Ping us on Discord with any Questions –


Presentation Materials


<https://github.com/rladies-aurora>


 rladies-aurora


Q Type ↵ to search


 Overview


 Repositories 5


 Discussions


 Projects

 Packages


 Teams


 People 4


 Settings





R-Ladies Aurora

 12 followers

 <https://github.com/rladies-aurora>

 <https://meetup.com/rladies-aurora>

 <https://bit.ly/rladies-aurora-discord>


 Repositories

Q Find a repository...

Type ▾


Language ▾


Sort ▾


 New


202412-Python-in-R Public


Forked from [timbers/intro-to-reticulate](#)


 HTML

 0

 MIT

 15


 0


 0


Updated 29 minutes ago


202411-scicomm Public

Presenting your work to non-scientists

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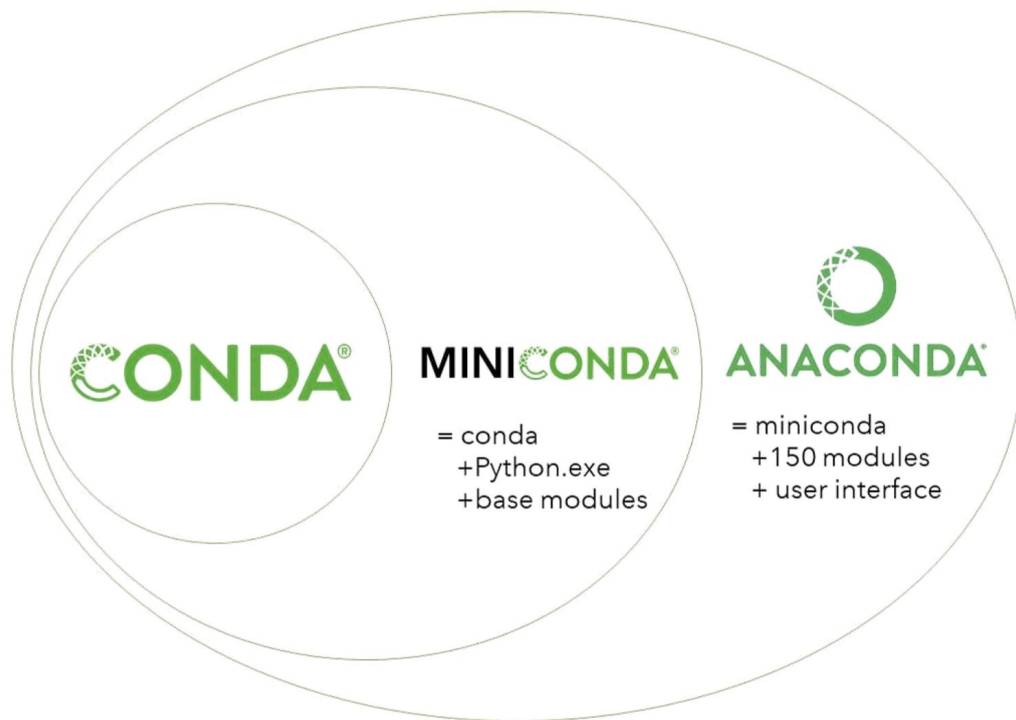
Updated 3 weeks ago

202410-rpkgdev Public

Intro | Meet & Greet

- Pizza + Sign-in  + Introduce yourself to your neighbor
 - Who you are | Name, affiliation
- **Installations:**     
 - R and Rstudio: <https://bit.ly/RLA-install-R>
 - Python, conda, and VSCode: <https://bit.ly/RLA-install-python>
- **Need help? Red sticky up! All set: Green!**

What's miniconda?



Miniconda is a minimal installer for the Conda package manager and its ecosystem. It provides a lightweight way to install Conda without bundling all the additional scientific packages included in the larger Anaconda distribution. This makes Miniconda ideal for users who want to set up customized Python or R environments without the bulk of pre-installed libraries.

The data science software stack

Type of tools needed:

- Programming language
- Code editor
- Version control software

Examples:

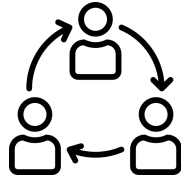


Choosing the BEST tool for the job



Reproducible and auditable

Accurate



Collaborative

{reticulate}



The reticulate package provides a comprehensive set of tools for interoperability between Python and R. The package includes facilities for:

- **Calling Python from R** in a variety of ways including R Markdown, sourcing Python scripts, importing Python modules, and using Python interactively within an R session.
- **Translation between R and Python objects** (for example, between R and Pandas data frames, or between R matrices and NumPy arrays).
- Flexible binding to different versions of Python including virtual environments and Conda environments.

Reticulate embeds a Python session within your R session, enabling seamless, high-performance interoperability. If you are an R developer that uses Python for some of your work or a member of data science team that uses both languages, reticulate can dramatically streamline your workflow!

Installations



<https://bit.ly/RLA-install-R>



<https://bit.ly/RLA-install-python>

Need help? Red sticky up! All set: Green!

Using Python in RStudio

