# PSYCH 705 – Statistical Methods in Psychology

Tuesdays 5:30pm - 8:20pm

Dr Lily Johnson-Ulrich

#### Pre-class Checklist

- ☐ Download R from CRAN: <a href="https://cran.r-project.org/">https://cran.r-project.org/</a>
- ☐ Download R Studio: <a href="https://posit.co/download/rstudio-desktop/">https://posit.co/download/rstudio-desktop/</a>
- ☐ Download Git: <a href="https://git-scm.com/downloads">https://git-scm.com/downloads</a>
- ☐ Create a GitHub Account: <a href="https://github.com">https://github.com</a>

## A little about me





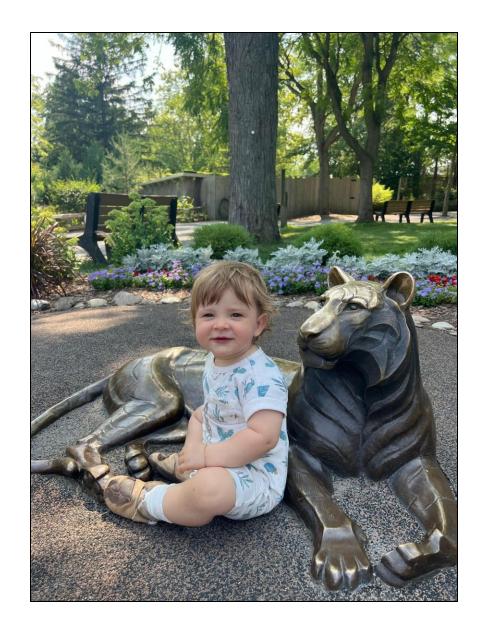
### A little about me





## A little about me





# A little about you

- What is your name and preferred pronouns?
- What lab group are you in?
- Do you know anything about the project you'll be working on for your MSc degree?
- What is your statistical experience?
- Have you ever heard of or used R?
- Have you ever heard of or used GitHub?

#### Aims of this course

- Apply analytical methods to behavioral data using **R**, including data wrangling, visualization, and statistical model fitting
- Develop reproducible workflows using R Studio and GitHub for version control, project management, and open science practices
- Critically evaluate and interpret the design and analysis of statistical outputs to draw biologically meaningful conclusions
- Integrate ecological theory and statistical methods to design and analyze studies that address animal behavior research questions

# Today's lesson plan

- Introduction to R
  - Navigate R Studio
  - Learn about R scripts and R markdown
  - Write basic R code
- Introduction to GitHub
  - Create GitHub repositories for this class
  - Run our first R scripts and push them to Github
- Review the syllabus and course structure





# Open R Studio

• Let's get started!

## Syllabus & Course Website

- Course Website: <a href="https://github.com/l-johnsonulrich/PSYCH705">https://github.com/l-johnsonulrich/PSYCH705</a>
- View or download the syllabus: <a href="https://github.com/l-johnsonulrich/PSYCH705/blob/main/syllabus/PSY705\_Syllabus\_Fall2025.pdf">https://github.com/l-johnsonulrich/PSYCH705/blob/main/syllabus/PSY705\_Syllabus\_Fall2025.pdf</a>

# Wrapping Up

- Find on Github
  - Fully annotated demo with Markdown and Git cheatsheets
  - Completed example of the in-class practice
  - Template for Week 1 Homework (due Sunday night)
- Your repo should have:
  - Week1
    - Demo
    - inClass
    - homework (by next week)
- Any questions?