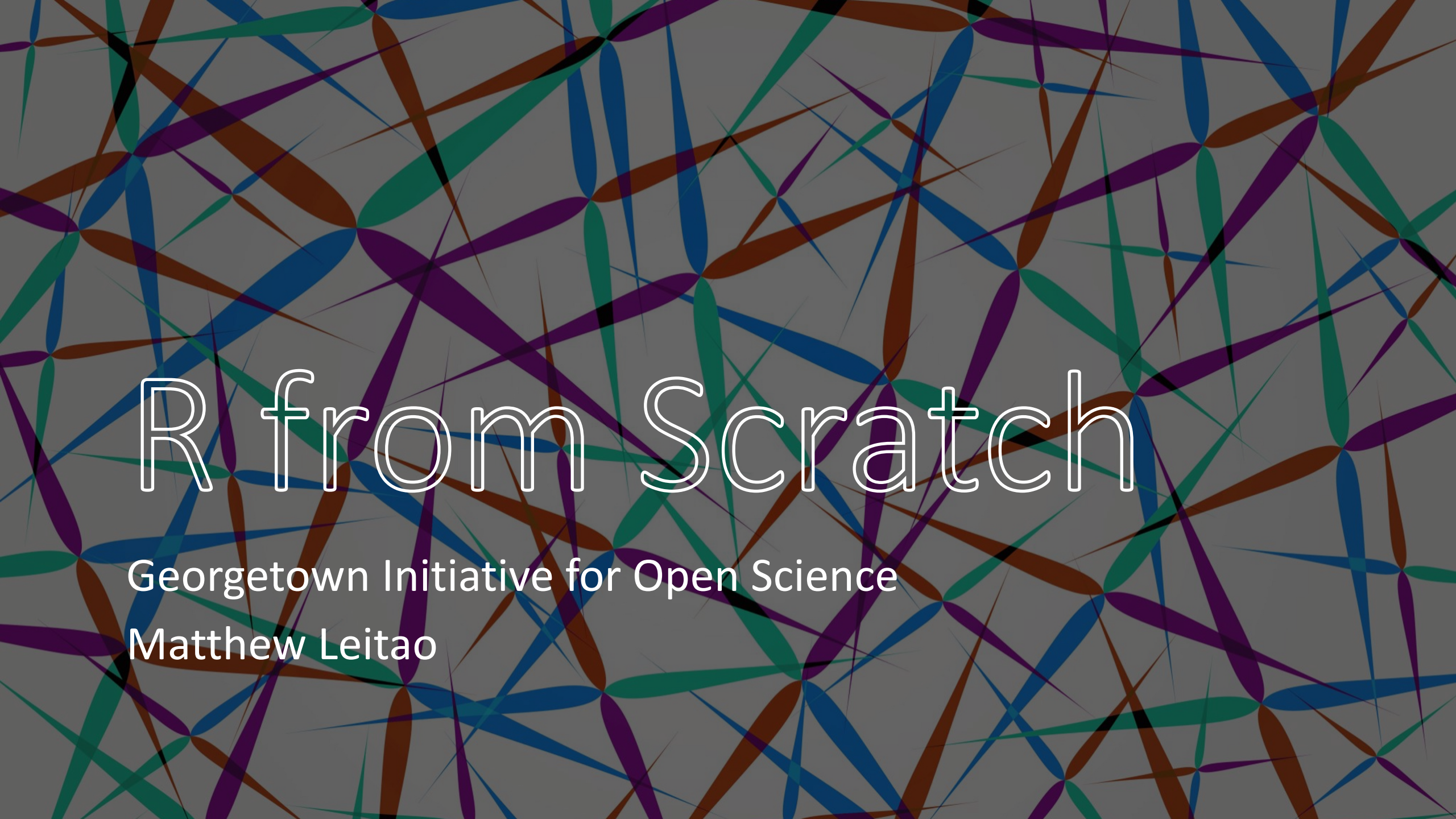




R from Scratch

Georgetown Initiative for Open Science

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Georgetown Initiative for Open Science (GLOS)

What is the issue?

The Replication Crisis: Many studies do not replicate due to the use of questionable research practices (e.g., p-hacking, HARKing, publication bias).

Crisis of confidence in science: Many researchers, practitioners, and policy makers cannot rely on evidence based research - even if it is peer-reviewed.

What is the solution?

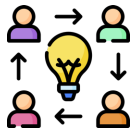
The Open Science Movement: A toolbox for science that is built upon fundamental values - openness, transparency, and integrity. These tools include among others:



Open Access, Open Data, Open Source



Preregistration, Registered Reports & Preprints



Collaboration, Reproducibility, Citizen Science



Research Data Management & Science Communication

Georgetown Initiative for Open Science (GLOS)

Why should you care?

Open Science practices are tough but rewarding and will in the long run make your life easier!

- More reliable, valid, and meaningful outcomes.
- Greater access to materials/data/code.
- Broader learning for statistical analyses, methods, and research designs.
- Increased access to a growing international community of scholars

Georgetown Initiative for Open Science (GLOS)

What is our goal?

We want to provide resources and education to demystify Open Science practices at GU and foster a research community. Some of our planned functions are to host lectures and provide workshops on PreRegistration, Power Analysis, R, Python, and Data Management, and establish a Methods and Statistics clinic.



Who Am I

- 4th Year Ph.D. Candidate in the Psychology Department
- I have 6 Years of Experience using R in both scholastic and professional settings
- I've used many other statistical programs, but I primarily use R

What is R

- R is a computer language designed specifically designed for statistical analysis.
- R is primarily designed to work with vectors, arrays, lists, and data frames to analyses, manipulate, and visualize data.

Why R

- It's Open Source
- It's Free
- Hundreds of Researchers, Scholars, and Businesses contribute to every year improving it every year.
- R has a large community of statisticians and programmers is available to help solve any of your issues that may arise.
- Code is reproducible and can be made open.
- Looks great on a resume

How Does R Compare to Other Programs

	R	Python	Stata/SE	SPSS
Ease of Use/Learning	Moderately Difficult	Somewhat Difficult	Moderately Difficult	Extremely Easy
Translatable To Other Programs	Moderately	Extremely	Slightly	Not At All
Finding Help	Great	Pretty Good	Decent	Decent
Flexibility	Extremely Flexible	Extraordinarily Flexible	Somewhat flexible	Somewhat flexible
Communities	Large	Large	Moderate	Moderate
Reproducibility	Phenomenal	Phenomenal	Somewhat difficulty	Somewhat difficult
Cost	Free!	Free!	\$179 Students/ \$225 Educator/ \$840 Business Per Year	\$81 Student/ \$289 Educator \$1188 Individual Per Year

Lets Get To It!

