

Introduction to GIS in R

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This workshop will provide an introduction on how to use R and R Studio to load and manipulate spatial data, make publication-quality maps, and introduce interactive maps. This lesson is based is based on the <u>online book Geocomputation with R</u> (Lovelace, Nowosad, and Muenchow 2017). See <u>the readme for other credits</u>.

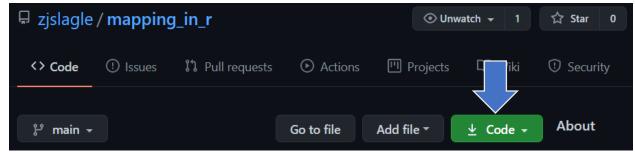
Prerequisites:

Workshop participants have a working knowledge of the R programming language and use of the R Studio environment. Additionally, this workshop relies heavily on the R package tidyverse, especially GGplot2 for plotting maps – familiarity with ggplot mapping syntax is strongly encouraged.

In order to follow along and run code for this workshop, students should first install R and R Studio:

- Install (or update) R:
 - o R for Windows download is here. Click on "Download R 4.0.3 for Windows".
 - o R for Mac download is here. Click on "R-4.0.3.pkg" on the left side of the page.
- Install (or update) RStudio here.

Students should also navigate to the <u>workshop Github page here</u> and download the scripts and data necessary for the workshop. Click the green "Code" button and select "Download ZIP":



Finally, participants should open the "mapping_in_R.Rproj" R Project and then the "1_load data .R" script in R Studio. Run the first few lines of code to install packages if you want to follow along.