

## Intro to Data Manipulation in R

- Understand how data manipulation fits in the data science workflow and its importance
- Be able to install and load a package into R
- Understand what the tidyverse is and what is its purpose
- Work with the readR package to read in data
- Be able to understand what a data frame is and what rows and columns represent
- Be able to check the column names of a dataset
- Be able to subset a single column using the \$ operator
- Be able to subset a single or multiple columns using dplyr
- Be able to check the head and tail of the data
- Be able to check distinct values from a categorical column using dplyr
- Be able to check simple summary statistics on columns using dplyr
  - Mean
  - Median
  - Maximum
  - Minimum
- Be able to investigate the correlation coefficient between columns
- Be able to rename columns with dplyr
- Be able to arrange columns in ascending or descending order with dplyr
- Understand what the dplyr pipe operator is and why it is important
- Be able to do simple math with the dplyr pipe operator

- Be comfortable with chaining dplyr verbs together
- Be comfortable with the select, arrange, rename, distinct, and summarise verbs from dplyr and be able to manipulate data with the pipe operator