

# ART Forum R Cheat Sheet

## Data Wrangling

### Manipulating Observations

`filter()` observations  
`arrange()` observations in ascending order  
`arrange(desc())` observations in descending order  
`bind_rows()` to stack observations

### Manipulating Variables

`select()` variables  
`mutate()` variables (recoded or new)  
`transmute()` to mutate and select variables  
`rename()` variables  
`left_join()` matching observations from right df  
`anti_join()` keeping observations that don't match  
`inner_join()` keeping observations that match  
`bind_cols()` to add variables  
`gather()` variables into key-value variable pairs  
`spread()` key-value variable pairs into variables  
`separate()` a variable into two or more variables  
`unite()` two or more variables into a single variable  
`row_numbers()` to create an id for each observation

## Data Summarization

### Discrete Variables

`count()` discrete variables  
`geom_col()` column plot  
`geom_bar()` bar plot

### Continuous Variables

`summarize()` continuous variables  
`geom_histogram()` histogram  
`geom_density()` density plot  
`geom_point()` scatterplot  
`geom_smooth(method = "lm")` regression line

### Discrete and Continuous Variables

`group_by()` `%>% summarize()` grouped summary  
`geom_boxplot()` boxplot  
`geom_jitter()` jittered scatterplot  
`facet_wrap()` and `facet_grid()` separate plots

## Text Analysis

### Data Wrangling

`unnest_tokens()` into a tidy text df  
`get_sentiments()` from the specified dictionary  
`bind_tf_idf()` to a df with counts by document  
`read_html()` to scrape a webpage  
`html_nodes()` extract data from a given XML node  
`html_text()` extract text from a given XML node  
`str_split()` split a string by a given regular expression  
`str_view_all()` practice writing regular expressions

### Topic Modeling

`cast_dtm()` from a tidy df with counts by document  
`LDA()` run a topic model  
`tidy(matrix = "beta")` topics from LDA output