








Spatial manipulation with sf: : CHEAT SHEET



The sf package provides a set of tools for working with geospatial vectors, i.e. points, lines, polygons, etc.

Geometry operations

-  **st_contains(x, y, ...)** Identifies if y is within x (i.e. point within polygon)
-  **st_crop(x, y, ..., xmin, ymin, xmax, ymax)** Creates geometry of x that intersects a specified rectangle
-  **st_difference(x, y)** Creates geometry from x that does not intersect with y
-  **st_intersection(x, y)** Creates geometry of the shared portion of x and y
-  **st_sym_difference(x, y)** Creates geometry representing portions of x and y that do not intersect
-  **st_snap(x, y, tolerance)** Snap nodes from geometry x to geometry y
-  **st_union(x, y, ..., by_feature)** Creates multiple geometries into a single geometry, consisting of all geometry elements

Geometric measurement

- st_area(x)** Calculate the surface area of a polygon geometry based on the current coordinate reference system
- st_distance(x, y, ..., dist_fun, by_element, which)** Calculates the 2D distance between x and y based on the current coordinate system
- st_length(x)** Calculates the 2D length of a geometry based on the current coordinate system

Misc operations

- st_as_sf(x, ...)** Create a sf object from a non-geospatial tabular data frame
- st_cast(x, to, ...)** Change x geometry to a different geometry type
- st_coordinates(x, ...)** Creates a matrix of coordinate values from x
- st_crs(x, ...)** Identifies the coordinate reference system of x
- st_join(x, y, join, FUN, suffix, ...)** Performs a spatial left or inner join between x and y
- st_make_grid(x, cellsize, offset, n, crs, what)** Creates rectangular grid geometry over the bounding box of x
- st_nearest_feature(x, y)** Creates an index of the closest feature between x and y
- st_nearest_points(x, y, ...)** Returns the closest point between x and y
- st_read(dsn, layer, ...)** Read file or database vector dataset as a sf object
- st_transform(x, crs, ...)** Convert coordinates of x to a different coordinate reference system

