Why R

Francisco Rodriguez-Sanchez

http://bit.ly/frod_san

Why R

- Free, open-source, cross-platform

Why R

- ▶ Free, open-source, cross-platform
- ▶ Not just stats package, but a programming language

Why R

- Free, open-source, cross-platform
- Not just stats package, but a programming language
- Can do many things beyond stats (e.g. scrape web data, GIS, etc)

Why R

- Free, open-source, cross-platform
- Not just stats package, but a programming language
- Can do many things beyond stats (e.g. scrape web data, GIS, etc)
- +15,000 packages extending functionality

Why R

- Free, open-source, cross-platform
- Not just stats package, but a programming language
- Can do many things beyond stats (e.g. scrape web data, GIS, etc)
- +15,000 packages extending functionality
- Flexible, powerful

Why R

- ▶ Free, open-source, cross-platform
- ▶ Not just stats package, but a programming language
- ▶ Can do many things beyond stats (e.g. scrape web data, GIS, etc)
- ▶ +15,000 packages extending functionality
- ▶ Flexible, powerful
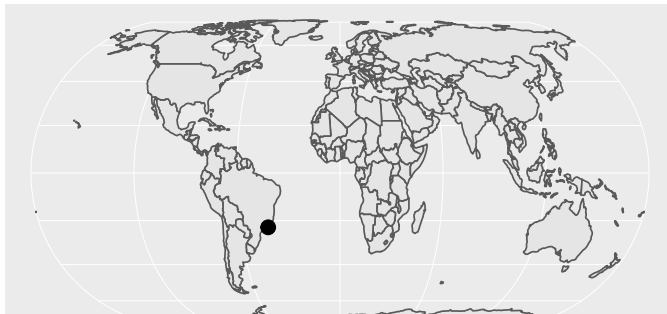- ▶ Can easily connect to other languages (e.g. Python, C++)

Why R

- Free, open-source, cross-platform
- Not just stats package, but a programming language
- Can do many things beyond stats (e.g. scrape web data, GIS, etc)
- +15,000 packages extending functionality
- Flexible, powerful
- Can easily connect to other languages (e.g. Python, C++)
- High-quality graphics

Why R

- Free, open-source, cross-platform
- Not just stats package, but a programming language
- Can do many things beyond stats (e.g. scrape web data, GIS, etc)
- +15,000 packages extending functionality
- Flexible, powerful
- Can easily connect to other languages (e.g. Python, C++)
- High-quality graphics
- Large, helpful community (forums, StackOverflow, Twitter)

Some cool things you can do with R (besides cutting-edge stats)
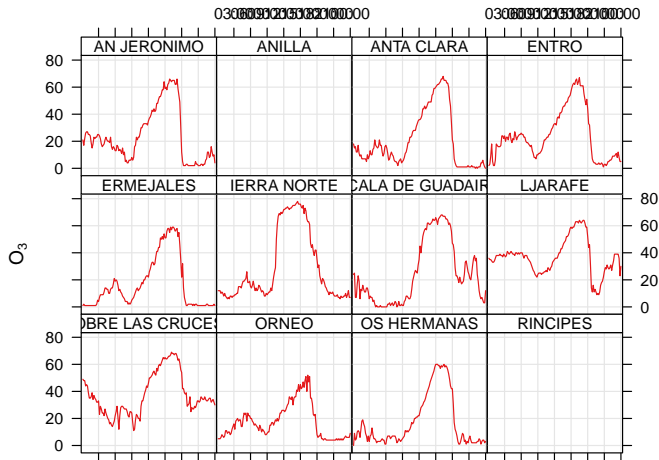
Where is Rio de Janeiro?

```r
library(tmaptools)
rio <- geocode_OSM("Rio de Janeiro", as.sf = TRUE)
library(ggplot2)
ggplot() +
  geom_sf(data = World) +
  geom_sf(data = rio, size = 4)
```
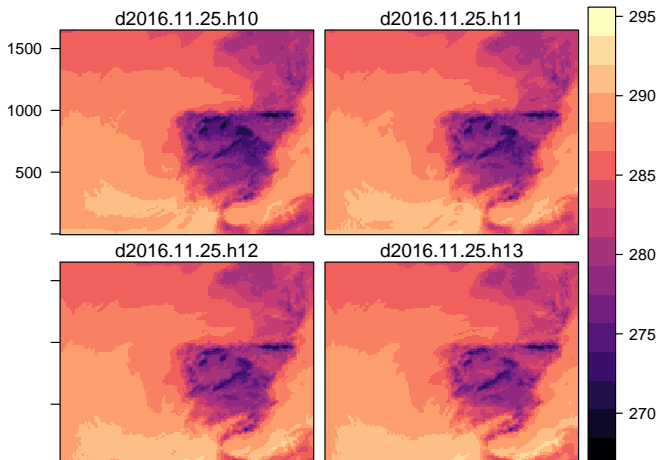
How was air quality in Sevilla?

```r
library(aire)
air.se <- get_daily_data("2016-12-10", province = "se")
library(openair)
timePlot(air.se, pollutant = "O3", type = "site")
```

Get climate data from the web

```
library(meteoForecast)
tiempo <- getRaster("temp", day = "2016-11-25")
library(rasterVis)
levelplot(tiempo, layers = 10:13)
```

Create websites, slides, articles, thesis

Download data from World Bank and display motion chart

```r
library(googleVis)
demo(WorldBank)
```

and many more. . .