Deploying to Production

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Overview

Deploying to Production

Demo

Course Summary

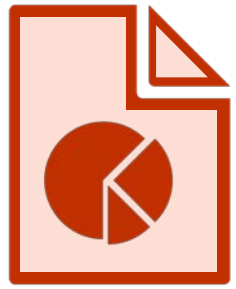
Deploying R into Production

Create documents

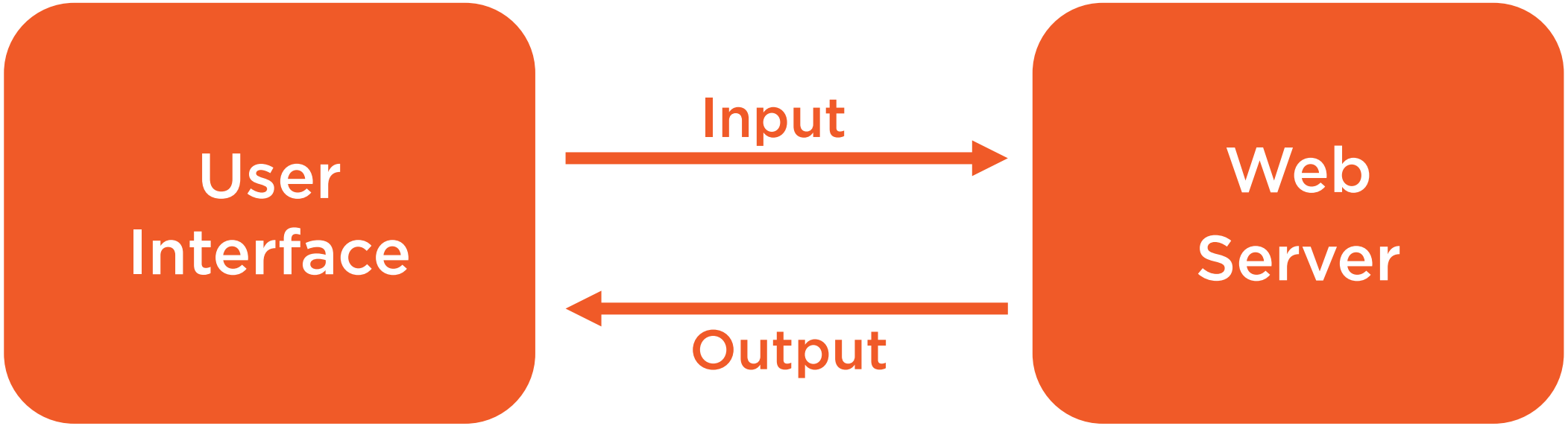
Create applications

Deploy to server

Deploy to cloud

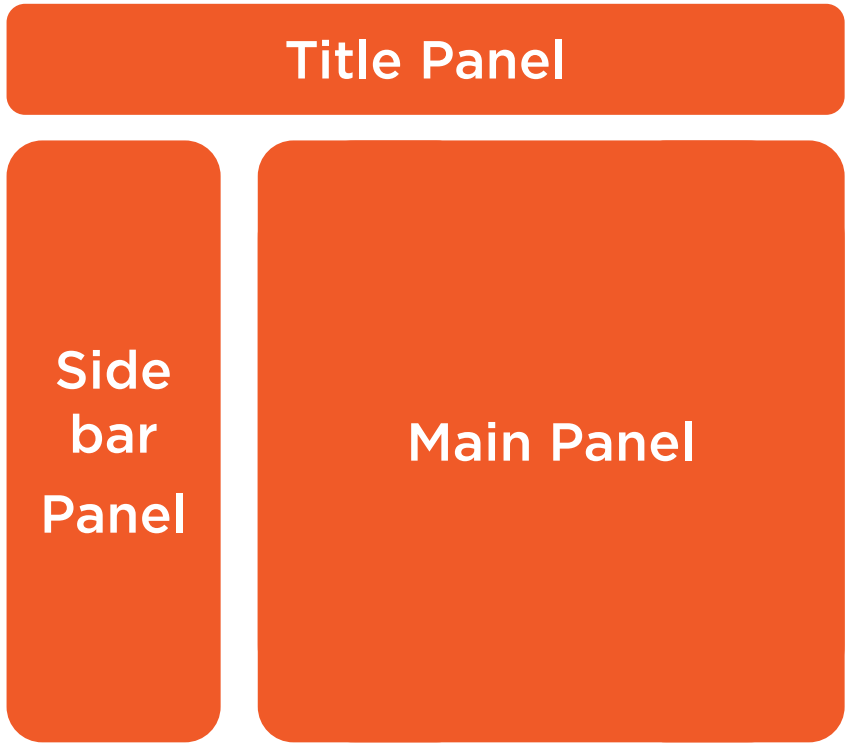


Shiny



Shiny UI Layout

```
# Create a UI
ui <- fluidPage(
    titlePanel("Title Panel"),
    sidebarLayout(
        sidebarPanel("Sidebar Panel"),
        mainPanel("Main Panel")))
```



Shiny UI Widgets

Buttons

Action

Submit

Single checkbox

☑ Choice A

Checkbox group

☑ Choice 1
☐ Choice 2
☐ Choice 3

Date input

2001-02-03

Date range

2016-08-06 to 2016-08-06

File input

Choose File No file selected

Help text

Note: help text isn't a true widget, but it provides an easy way to add text to accompany other widgets.

Numeric input

1

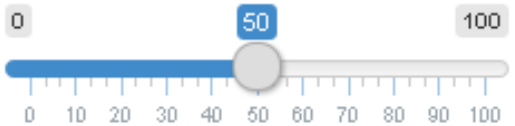
Radio buttons

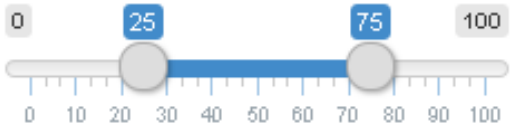
◉ Choice 1
○ Choice 2
○ Choice 3

Select box

Choice 1

Sliders



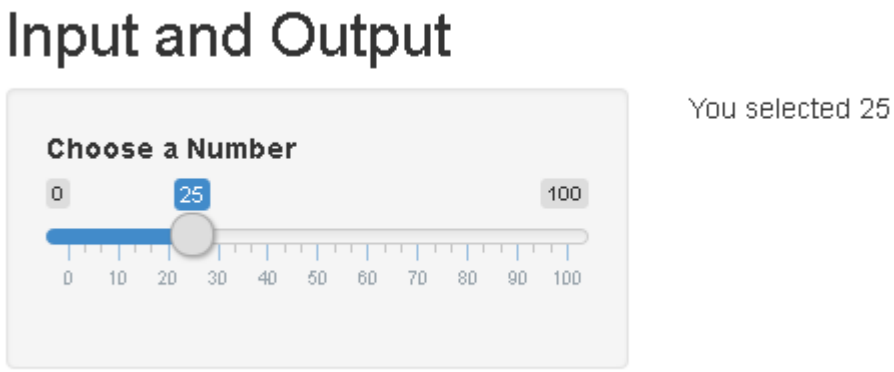


Text input

Enter text...

Shiny UI Widgets

```
# Create a UI with I/O controls
ui <- fluidPage(
    titlePanel("Input and Output"),
    sidebarLayout(
        sidebarPanel(
            sliderInput(
                inputId = "number"
                label = "Choose a Number",
                min = 0,
                max = 100,
                value = 25)),
        mainPanel(
            textOutput(
                outputId = "text"))))
```



Shiny Web Server

```
# Create a UI with I/O controls
ui <- fluidPage(
    titlePanel("Input and Output"),
    sidebarLayout(
        sidebarPanel(
            sliderInput(
                inputId = "number"
                label = "Choose a Number",
                min = 0,
                max = 100,
                value = 25)),
        mainPanel(
            textOutput(
                outputId = "text"))))
```

```
# Create a server
server <- function(input, output) {
    output$text <- renderText({
        paste(
            "You selected ",
            input$number)})
}
```

Shiny App

```
# Create a shiny app
shinyApp(
    ui = ui,
    server = server)
```

```
# Create a UI with I/O controls
ui <- fluidPage(
    titlePanel("Input and Output"),
    sidebarLayout(
        sidebarPanel(
            sliderInput(
                inputId = "num",
                label = "Choose a Number",
                min = 0,
                max = 100,
                value = 25)),
        mainPanel(
            textOutput(
                outputId = "text"))))

# Create a server than maps input to output
server <- function(input, output) {
    output$text <- renderText({
        paste(
            "You selected ",
            input$number)})
}
```

1. What is the species of iris flower?
2. How was this prediction made?

Create Hello World Shiny App

Create Simple Shiny UI

Create a Simple Shiny Server

Create a Simple Shiny App

Shiny App Set Up

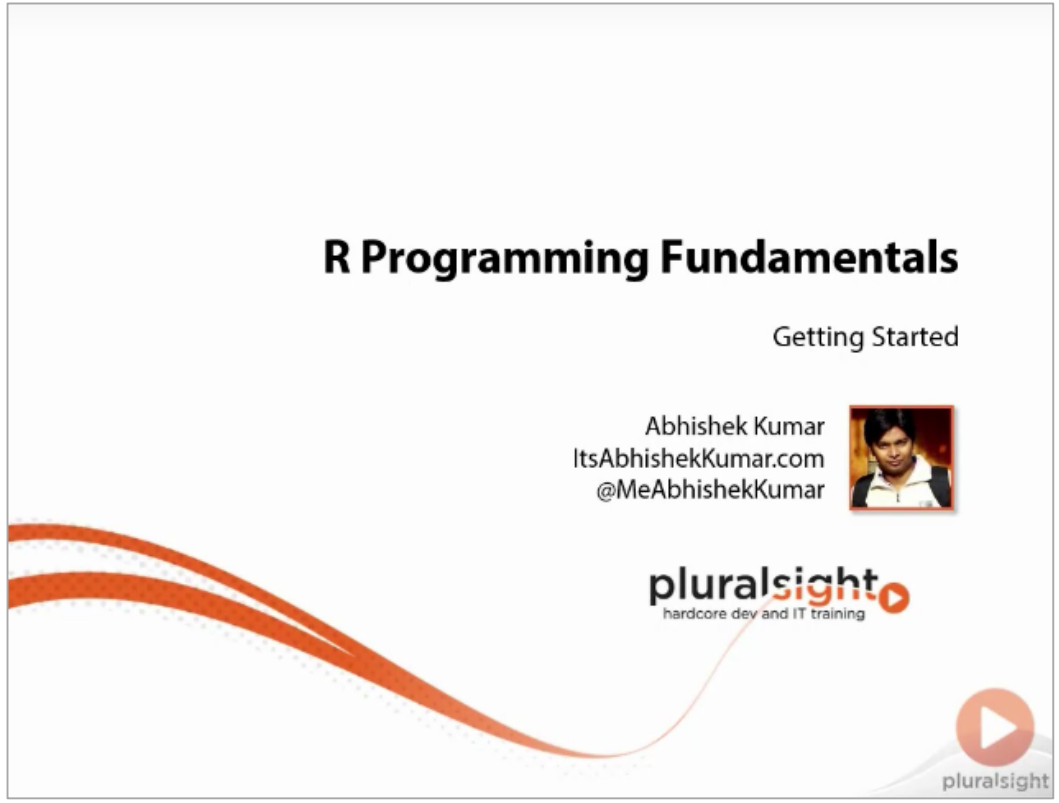
Create Shiny UI

Create Shiny Server

Create Shiny App

Where to Go Next?

Introduction to R



http://www.pluralsight.com/courses/r-programming-fundamentals

http://www.pluralsight.com/courses/rstudio-get-started

Working with Data

Exploratory Data Analysis with R

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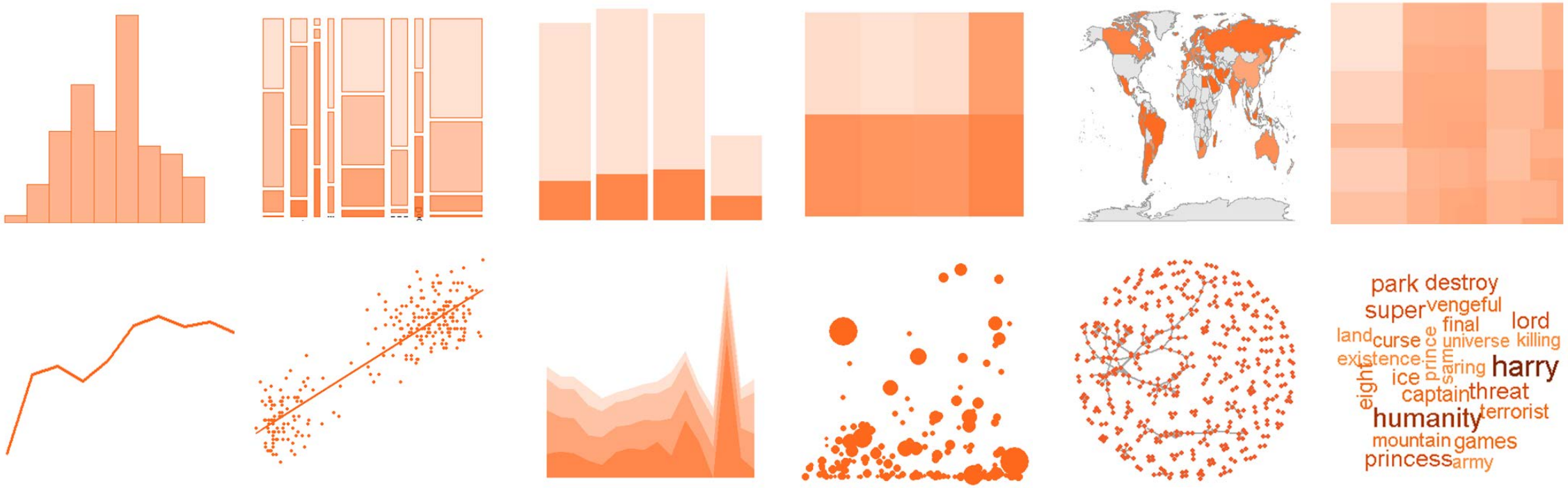
http://www.pluralsight.com/courses/r-data-analysis/

Creating Descriptive Statistics

http://www.pluralsight.com/courses/r-data-analysis/

Creating Data Visualizations



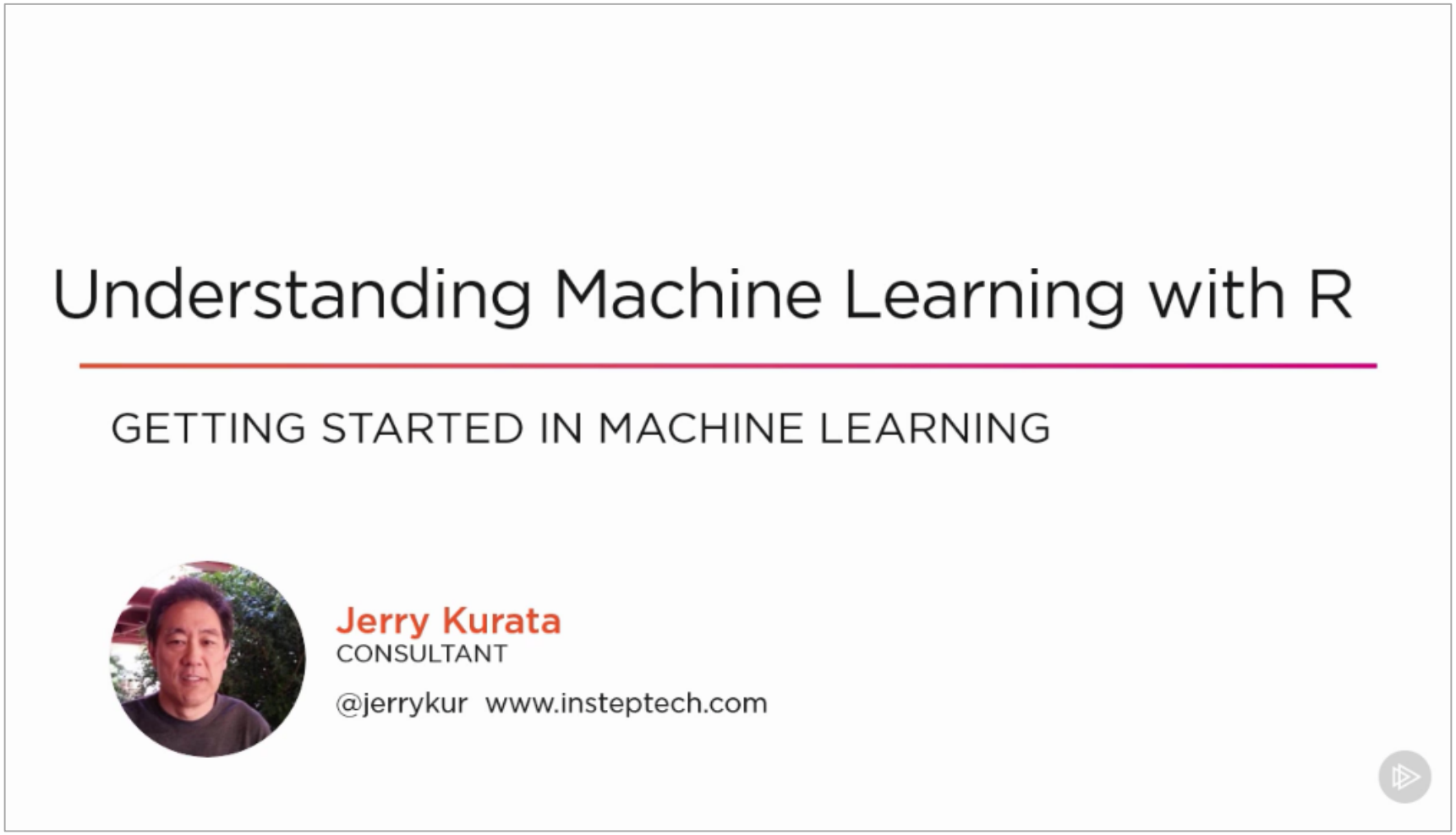
Beginning Data Visualization with R

Multivariate Data Visualization with R

Mastering Data Visualization with R

http://www.pluralsight.com/author/matthew-renze

Predicting with Machine Learning



http://www.pluralsight.com/courses/r-understanding-machine-learning

Predicting with Machine Learning

Exploratory Data Analysis with R

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http://www.pluralsight.com/courses/r-data-analysis/

Other Topics

Pluralsight: http://www.pluralsight.com

Coursera : https://www.coursera.org

Revolutions: http://blog.revolutionanalytics.com

R-Bloggers: http://www.r-bloggers.com

Flowing Data: http://www.flowingdata.com

R-exercises: http://www.r-exercises.com

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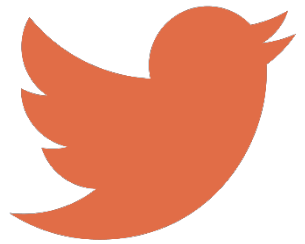

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Course Summary

- Introduction to Data Science
- Introduction to R
- Working with Data
- Creating Descriptive Statistics
- Creating Data Visualizations
- Creating Statistical Models
- Handling Big Data
- Predicting with Machine Learning
- Deploying to Production