American Statistical Association Philadelphia Chapter
Friday, October 14, 2022
8:30 am – 4:30 pm

ASA
Virtual Traveling Course:
Data Visualization with R

Registration is Now Open!

Students: $25

Retires: $25

Regular: $35

Registration Link: https://www.eventbrite.com/e/417086355517

The course will be taught by Mr. Aaron R. Williams, a senior data scientist in the Urban Institute's Income and Benefits Policy Center, and an adjunct professor in the McCourt School of Public Policy at Georgetown University. Mr. Williams leads Urban's R users group and assists researchers across Urban with projects that use R for data science, statistical analysis, data visualization, mapping, and automation. He has authored several R packages for data visualization and data synthesis.

Data visualization plays a crucial role in the data science and statistics workflows. It is fundamental to everything from exploratory data analysis to communicating results. Data scientists and statisticians can better understand data and more effectively communicate their work by understanding how to better visualize their data. Too often, however, visualization is an afterthought. In this course, attendees will learn the core principles of data visualization and the perception of visual information; the layered grammar of graphics; and best practices for creating effective visualizations. To put these principles to work, attendees will learn practical skills for R programming that improve the quality of their work with many hands-on examples. The course will focus on the popular R package ggplot2 and the reproducible research framework R Markdown. After this course, participants will be comfortable using R and R Markdown to create effective data visualizations.

This course can be counted toward your continuing education for maintaining GStat and PStat accreditation. You are welcome to participate in any portions of the schedule (see below) even if you cannot attend the entire course.

Morning
8:30 AM - 9:00 AM Motivation and Introduction to R Markdown
9:00 AM - 9:10 AM Break
9:10 AM - 10:30 AM The Layered Grammar of Graphics
10:30 AM - 10:40 AM Break
10:40 AM - 12:00 PM Jon Schwabish's Five Guidelines in R
Lunch
12:00PM - 1:00PM Lunch Break
Afternoon
1:00 PM - 1:50 PM Visualizing big data
1:50 PM - 2:00 PM Break
2:00 PM - 2:50 PM Visualizing regression models
2:50 PM - 3:00 PM Break
3:00 PM - 3:50 PM Visualizing time series data
3:50 PM - 4:00 PM Break
4:00 PM - 4:30 PM Advanced R Markdown
Additional topics may include data munging and mapping (time permitting).

Organizing committee of the ASA Philadelphia Chapter: Jiangtao Gou (Villanova University), William Huber (Analysis & Inference), Wei-Ting Hwang (University of Pennsylvania), Wen Li (Pfizer), Jason Liao (Incyte), Thao Nguyen (Johnson & Johnson), Eric Terkpertey (University of Pittsburgh).

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