R Programming

Week 1, Class 1

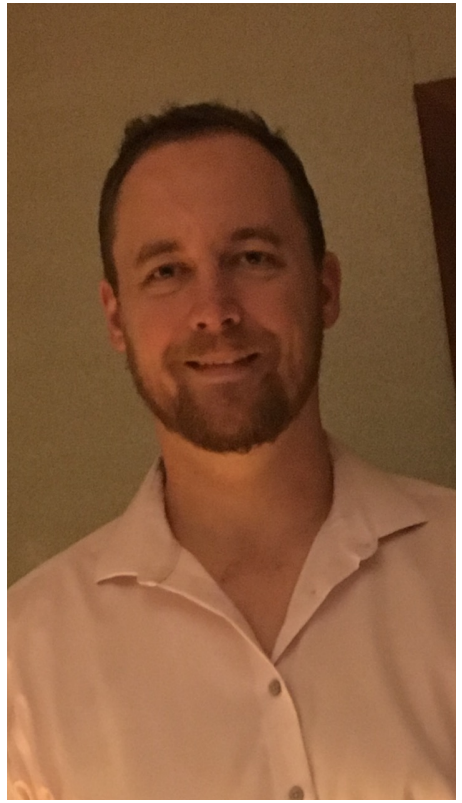
Instructor: Denis Vrdoljak

Goals for the week

- Cover Intros and Intro Material
- Get your tools and environment set up
- Get familiar with RStudio

By the end of this, week you should:

- Have R and Rstudio installed and set up
- Understand vectors and variables



About Me

Denis Vrdoljak

- Master Of Information and Data Science - UC Berkeley
- Master of International Affairs - Texas A&M
- BS, Engineering Physics - SCU, Class of 2005!

- Currently Working as a Data Scientist @ Cisco
- Data Science Advisor @ Bronco Accelerator
- Other places I've worked at: UC Berkeley, SanDisk, Western Digital, IBM, Specter Defense, Berkeley Data Science Group

Where to Find Me

- dvrdoljak@scu.edu
- Office: Lucas Hall, 216ZZ
- Office Hours: Wed 5:30pm

Student Introductions

- Introduce yourself
- Tell us about your background and interests
- Share with us what you hope to get out of this class/why you are here?
  - It's ok if the answer to this last one is "because it's a requirement," or "it looked easier than Physics for Engineers!"
- Share something interesting about yourself-- like what you did this summer, or what you want to do after graduating

Syllabus

https://github.com/denisvrdoljak/MSIS2506_Fall2019/blob/master/Syllabus-MSIS2506-Fall2019.pdf

Course GitHub Repository

https://github.com/denisvrdoljak/MSIS2506_Fall2019

Course Measurables

- Understand the basics of the R language
- Be able to ingest data from multiple sources
- Be able to manipulate data to prepare it for analysis
- Be able to plot and visualize data
- Understand how to create R functions
- Know how to create R libraries
- Be able to perform basic statistics and and exploratory data analysis in R
- Be able to present a complex data analysis in an R or Jupyter notebook
- Be able to create an interactive R Shiny application

Project/Exam Schedule (tentative)

Week	Assigned	Due
Week 1	Project 1 Assigned	
Week 2		
Week 3	Project 2 Assigned	Project 1 Due
Week 4		
Week 5		Project 2 Due
Week 6	Project 3 Assigned	MIDTERM
Week 7		
Week 8	Project 4 Assigned	Project 3 Due
Week 9		
Week 10		
Finals Week		Project 4 Due

Camino

Submit all assignments and projects in Camino

Announcements will be posted in Camino

Assignments will be posted in Camino

Required material

- Laptop running Windows, OSX, or Linux
- Internet Connection

Homework Logistics

- Due: Before the next class
- Turn-in: Camino (or via email if Camino is not setup)
- Extension Policy:
  - With prior approval only.
- Late Grading Policy:
  - Don’t be late! But, if you have to be, you must have prior approval, or have an excused absence.
- Questions on a grade:
  - Message the Instructors Privately

Homework 1

- Install R and RStudio. Order the books (see syllabus).
- Go through Part 1 (intro) and Part 2 (getting data into R) here:
- https://www.computerworld.com/article/2497143/business-intelligence-beginner-s-guide-to-r-introduction.html#tk.ctw-infsb
- https://www.computerworld.com/article/2497164/business-intelligence-beginner-s-guide-to-r-get-your-data-into-r.html#tk.ctw-infsb
- Also review sections 1,2,3 here: http://www.cyclismo.org/tutorial/R/index.html