

HW3- CMDA

Submit your script to Dropbox by Monday, September 22, 5pm. Name your script ("YourName_HW3.r"). Use the textbooks, class notes and scripts, as well as R help and internet resources. Ask questions in the Forum for your colleagues to answer. Work in teams, but submit your individual file with your work.

Part I

- 1) Load your project DATA.
- 2) Decide which variables are numeric and which ones are best set as factor.
- 3) Get numerical summaries for all your variables. Comment on the most common data issues, as listed in class.
- 4) Get visualizations. Use at least three types of graphs to describe both individual variables and relationship between variables. Describe further data issues that you might see or just general patterns.
- 5) Comment on and perform any needed treatment for missing values.
- 6) Comment on and perform any needed data transformations.
- 7) Save a new version of your data set as TransformedData.RData.
- 8) Update your project repository on Git with a new version of the R script and the new RData file. Include a comment of what you did in the description of the commit.

PART II

Python

- Install Enthought Canopy, by following the book instructions.
- <https://store.enthought.com/#canopy-academic>
- Choose the "full" installation that comes for free if you are in the academic field; make sure you sign up with your vt email address; that will give you access to the "full" version of Enthought Canopy.
- Follow the instructions at pages 8-9 of your textbook, for Windows and Mac respectively.
- We are using the Python 2.7 version.