Network = attwifi

**Coding Shortcuts**

**W Select all for a section…**

Shift & tab = reverse of tab

Command / = comment it… i.e. “# “

Shift/tab without things selected gives you info about it

. “tab” is auto-fill

**Practice w git & github**

<https://github.com/joshnh/Git-Commands>

<https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>

<https://desktop.github.com/>

Git is for version control…visualization <> Github repo

Local git repository

Committing is when you have changed code

**Common Terminal Commands**

**In terminal:** = command line = gitbash in Windows – everything is a folder…

‘Command t’ for a new tab in the terminal

Control C to get to David$... from Jupyter

Cd ~ to go back to home directory

cd = change directory

`cd Desktop` will change to the desktop directory

`cd ..` to go back to previous folder

`cd WHATEVER.DIRECTORY/FOLDER I WANT TO GO TO` will move to the newly created folder

pwd = present working directory…how computer downloads

`**mkdir** NAMEofFOLDER` will make a new directory/FOLDER on the desktop / in whatever folder I am in.

`**ls**` will show/LIST what in the current directory

`**touch** first\_file.py` will create a FILE

"**python** NAMEofFILE**.py**" will run file

open ---- opens python file in visual studio code

‘open .’ to show normal view of folder

(or `explorer .` in PC will open the current folder)

Files/folders that start with “.” are hidden

Start VSCode from command line:

<https://code.visualstudio.com/docs/setup/mac>

now linked… from terminal “code .”

2^3 in python 2\*\*3

elif = elseif

**8/20/18 – Monday Material 7th week – 19th day Manuel Lara**

**8/18/18 – Saturday Material 6th week – 18th day Manuel Lara**

Slacked from Manuel:

Todays class will involve installing a couple of Python packages.

These packages are best installed in a virtual environment like PythonData.

If you don’t have a virtual env then follow the steps below.

To **create a virtual environment in Anaconda** VE = virtual environment

conda info –envs TO SEE CONDA ENVIRONMENTS

source activate TO CHANGE/activate VE

source deactivate

Step 1:

\*conda create -n PythonData python=3.6 anaconda\*

Where

PythonData - name of the virtual environment (you can also change this to a custom name if you want)

python=3.6 - version of python interested in installing

anaconda - this is optional. If specified then the virtual environment will be loaded with some base anaconda libraries.

Note: Since there are quite a few base libraries that come with anaconda running this step may take a few minutes

Step 2

After Step 1 you should be able to open a new Jupyter Notebook file with the option of choosing PythonData as your Kernel. When you need to install any new library for class then you do

\*source activate PythonData\*

And

\*pip install <Replace with Library name>\*

<https://stackoverflow.com/questions/39604271/conda-environments-not-showing-up-in-jupyter-notebook>

virtual environments…? Notebook vs. lab…?

\*conda install nb\_conda\_kernels\* - type this in terminal or git bash and press ‘y’ after it gets going. This package will add any new virtual environment to Jupyter Notebook

If you have an existing virtual env then install \*nb\_conda\_kernels\*

and then do

\*conda remove -n PythonData\*

(note this can take awhile, do at home)

Then create PythonData again

\*conda create -n PythonData python=3.6 anaconda\*

You will now see PythonData in Jupyter Notebook

**Help with…**

Virtual environments…?

Week 6

<https://techbootcamps.utexas.edu/data/>

Curriculum:

<https://drive.google.com/file/d/0B6MV3osqMQYUY3hJOWFRZ1RiUzA/view>

<https://towardsdatascience.com/when-your-job-is-done-as-a-data-scientist-c5d887bb0d0e>

Resources:

<https://code.visualstudio.com/docs?dv=osx>

<https://www.git-tower.com/blog/command-line-cheat-sheet/>

<https://www.git-tower.com/newsletter/confirm/mac>

**CLASS REPO**

<https://id.atlassian.com/login>

linked to **source tree…new access to github**

<https://www.sourcetreeapp.com/>

GITHUB DESKTOP…before

To get **repo** of class activities from **GitHub**

**Terminal** – cd desktop – ‘git clone <https://github.com/the-Coding-Boot-Camp-at-UT/UTAUS201807DATA2.git>’

Then next time

In terminal, Navigate into folder UTAUS201807DATA2

And then do

‘git pull’

git stash

<https://www.codecademy.com/articles/command-line-commands>

conda env list

lists the virtual environments in my computer

**For Python HW…step 1** - Push the above changes to GitHub…from my HW folder…

git add -AA

git commit -m 'pushing up files'

git push

**8/13/18 – Monday Material 6th week – 16th day AD, Yukon, & Ryan (sub TA)**

See separate notes

**8/6/18 – Monday Material 5th week – 13th day AD, Russell, & Ryan (sub TA)**

Matplotlib…see notes

**8/4/18 – Saturday Material 4th week – 12th day AD**

See **join** images and notes from TAs in Slack

### 1. Data Clean-Up I

\* Data is inherently dirty. It often contains more information than is needed, columns are often mislabeled, and values are often missing or in the wrong format. This activity will require you to use most of what you've learned this week to fix just such a problem in a real-world data set.

### 2. Data Clean-Up II

\* The next activity will require you to clean and explore the same dataset in order to generate a very different set of summary data.

**8/1/18 – Wednesday Material 4th week – 11th day**

Pandas

some of the library's more complex functions - like iloc, loc, and grouping –

### Class Objectives

\* Students will understand how to navigate through DataFrames using

Loc (Uses string) and

iloc (uses ???) (“index location”)

taking out a piece of data in a table

or searching for 1…

df = data frame

\* Students will understand how to filter and slice Pandas DataFrames

\* Students will understand how to create and access Pandas **GroupBy** objects

\* Students will understand how to **sort** DataFrames

**7/30/18 – Monday Material 4th week – 10th day**

the python library "**pandas**", focusing on the concept of the dataframe and how to make and use them

series – 1D array

data frames - 2D data structure w rows & columns

**7/28/18 – Saturday Material 3rd week – 9th day**

**Jeremy Hill**

the DataViz Curriculum Manager, guest teaching Saturday.

If you find yourself staring at a blank screen not sure how to start an activity… helpful **links**:

https://www.youtube.com/watch?v=YWwBhjQN-Qw

https://www.coursera.org/lecture/duke-programming-web/a-seven-step-approach-to-solving-programming-problems-AEy5M

https://codeburst.io/10-steps-to-solving-a-programming-problem-8a32d1e96d74

**7/25/18 – Wednesday Material 3rd week – 8th day** AD

Dylan was TA

1. Reading data into python from CSV (comma separated value) files

2. Writing data to CSV files from python

3. "zipping" lists together

4. Creating and using functions

<https://www.hackerrank.com/dashboard>

**7/23/18 – Monday Material 3rd week – 7th day** AD

DO COURSE THAT DANIEL SENT

<https://learnpythonthehardway.org/book/appendixa.html>

**concatenation** = connection, as in a chain.

a series of interconnected or interdependent things or events.

Study **standard deviation…**

What are **macros**? a single instruction that expands automatically into a set of instructions to perform a particular task. A Sub procedure.

**Boolean** = of or relating to a data type having two possible values representing “true” or“false.”

**HOW IS THIS USED?**

**visual studio code**

is better COLOR COORDINATED

**textEdit** NOT WORD bc of formatting inserting

or sub line text?

**Weeks 1-2: Intro to Data Analytics & Excel Masters**Students begin the course with an introduction to the high-level concepts of data analytics and real-world data crunching with Excel Formulas, Pivot Tables, and Conditional Formatting.

**7/21/18 – Saturday Material 2nd week – 6th day** AD

Excel HW / tutoring session 7/20/18:

Different clicks in excel…selecting a box vs. highlighted & moving…?

3 color scale…see directions

3) Average donation… add a $ sign;

How do I quickly copy this vertically down whole column?

Pivot tables with top 5000…

=IF(AND(H5,NOT(C5)), TRUE, FALSE)

In favorite colors ex ?

Glitch in Gradebook ex…60=59.5…F or D

**7/18/18 – Wednesday Material 2nd week – 5th day** AD

**7/16/18 – Monday Material 2nd week – 4th day** AD

When I get zips…folders…

**.vbs is directions or code to open up in Visual Studio Code**

**7/14/18 – Material**

Tyler Hubbel – **Sat.** class, works in tableau, beard, looks similar to JD

Arguments are fuel for functions

Nested function

1st demo

12 months on x axis

Flavors are y

Line chart desired, and other options quickly available…select data and then select which chart

Visualization…

Video solutions are on github repo (repository)

2. analytics…sales…scatter plot and regression line

3. predictive…game sales

4. pigeon racing

Filtering, pivot tables,

5. filtering game sales

See folder for others… 6. 7….8…

See video exs in slack…

**7/11/18 – Material**

V-lookups = vertical lookups

& h-lookups

Keep it flat, meaning columns don't have sub categories

**Functions**…modularize our code

= SUM (1,2,3)

Case sensitive?

2 parts:

Functions (methods) that do something w arguments

AVG (F4:F6)

=AVERAGE (drag over cells getting averaged) or Fx in toolbar

**Conditionals**

Basic syntax…controls flow of logic

If…criteria is met step 2a

Not…2b

Combine conditions AND

operand

**Mon. Day 1 - 7/9/18 – Material**

Rise of data

Why is it such an important skill?

Many industries are data-driven

Explosive growth in digitized data

Retrospective

Predictive data

Modeling –

Extrapolating…trends, potential, targeting,

data means what?

Info.

formulas, tables, databases

Data science…

**Truth-telling & story-telling are goals**

Conclusions,

Course overview

Technologies: Excel, Python, Pandas (tooled library), Tweepy (query data), VADER, Matplotlib/Seaborn, APIs (application programming interface), Beautiful soup (website scraping), machine learning (an application of AI) vs. AI…, MySQL, MongoDB (unstructured data), HTML / CSS, JavaScript, Leaflet.js / Google Maps, others…?

All are in 4 categories: program, visualization, analytics, API

**GROUP from day 1**

David – Denver, beard, met in elevator, army,

Daria – Ukraine

Vittal – India, Intel

Italian or Mexican…which is preferred by Americans?

**Analytics Paradigm: SEE REVIEW PPT SLIDE**

1. Understand the ?

2. Identify data sources

API = application program interface

3. Define strategy & metrics (zipcodes for cities…)

4. build data retrieval plan

5. Retrieve data (Python script to use Yelp API)

6. Assemble & clean data

7. Analyze trends (truth telling)

8. Acknowledge limitations

9. Make the call

1ST HW…

Module 2

Heroku toolbelt not finished…?

Homebrew…?

2---SSH Key

Setting your Git username for every repository on your computer

**Setting your email address for every repository on your computer**

**1---VS Code**

Module 5

Not yet…

**Mongo DB**

Since installing MongoDB is somewhat involved and we won't be using MongoDB until rather late in the course, it's not necessary to have it installed on Day 1 - there will be time later for us to set it up together.

UT boot camps - **Data Analysis and Visualization Boot Camp**

Rowling Hall (RRH). Brazos room 3rd floor = Exec. Ed. Space. 300 W. MLK. 78712

**7/9/18 – Intros**

McCombs

[stephen.walls@austin.utexas.edu](mailto:stephen.walls@austin.utexas.edu) checked me in…validated parking

partnered w Trilogy? **Brett Payne** is student success manager, has 2 young daughters

parking

**instructors**

AD (Adebayo) – lead software engineer at General Motors

Manuel Lara

XXX. Tyler Hubbel – **Sat.** class, works in tableau, beard, looks similar to JD

**TAs**

Russell Peck,

Yukon Peng, just took this camp

Dylan

Ryan

Anselmo

Team of virtual tutors

UTPD 512.471.4441 #9, if you need a safe ride

“Extended campus” @ UT

Linked in profile shared / networking with peers

Students

Jagin – works at GM

**Ishan – Zeshaun?**

DM

**Daria** – Ukraine

Shpecka? –

Deedee-a – Ethiopia

Anastasia – Russia,

Jossica – TX,

**David – Denver, Daria – Ukraine GROUP from day 1**

**Vittal – India, Intel**

Felicia – TX,

**Michael – TX,**

Mercer – Austin, Dell…laid off

3rd row

**Christian – TX,**

Jake –

Kaley – Indiana

Nick – Austin,

Lu – China,

Rodrigo – Mexico,

Phoenix – Austin,

Christoff (female) – Mexico,

Becca –

Fungaliatzee? – Mexico

Bouy – TX,

Barsha – India,

Daniel – TX,

2 GHz Intel Core i7

Is this a dual processor? Brett said ok

 **Mac Specifications:** Must be less than 2 years old (64 bit)

8 gigs of ram, 64 bit processor

Office Hrs are 45 min before and 30 min after each class

UT EID is: dwm757

stongs2

**BCS** = **BootCampSpot:** [www.bootcampspot-v2.com](https://bootcampspot-v2.com) = learning mgmt. system w live chat

GREEN button + support button…

HW (coursework link), attendance (check in), finance, support, calendar

**Username:** dmarcus9@hotmail.com   
**Password:** Stongs2!

ADD PICTURE FOR PROFILE

If you have questions over the weekend please contact: [studentadvisor@trilogyed.com](mailto:studentadvisor@trilogyed.com).

Kalimah Perry [kperry@trilogyed.com](mailto:kperry@trilogyed.com)

Student Engagement Specialist…works remotely…pre-start

Watched video orientation…42 min

**Slack** is platform for communicating w classmates & instructional team

See **app** on cell phone For wifi code

install the actual program on your machine

**Github** = repository for activities

To build professional profile & where personal code will live

Gitbook is just for pre-work

Submit on BCS

Backup location on gamedays (Saturdays)…

UT login…

<https://login.utexas.edu/login/UI/Login?goto=%2Fopenam%2Fcdcservlet%3FTARGET%3Dhttps%253A%252F%252Futdirect.utexas.edu%253A443%252Fapps%252Fpts%252Fparking%252Fprofile%252Flogon%252F%253Fencoded%253Dfalse%2526error%253DSESSION_TIMEOUT%2526goto%253Dhttps%25253A%25252F%25252Futdirect.utexas.edu%25253A443%25252Fapps%25252Fpts%25252Fparking%25252Fprofile%25252Flogon%25252F%26ProviderID%3Dhttps%253A%252F%252Futdirect.utexas.edu%253A443%252Famagent%253FRealm%253D%252Fadmin%252Futdirect-realm%26RequestID%3D1531912346301%26IssueInstant%3D2018-07-18T11%253A12%253A26Z%26MinorVersion%3D0%26MajorVersion%3D1>

Application and assessment = 95%

Academic interview

Phone interview for UT bootcamp. Rudy at 4pm 7/5/18

Team member : Rudy Concepcion

Business tool

Allows you to see the story the data is telling u

Google is my client, new landing pages for apps

Pay tuition

7/6/18

**RJ - Admin. Manager x 1208 308-3584**

Till 7 pm tonight

Payment link PAID 3000. 7/6/18

Enrollment agreement SIGNED.

 Full Tuition (cost: $11,500):

Interest-Free Payment Plan: A $3,000 deposit is required to secure your seat in class. The rest of the tuition will be split into six equal monthly payments of $1,416.67

30 students = maximum #

Michael Pietros - Admissions Coordinator

[codingbootcamp@utexas.edu](mailto:codingbootcamp@utexas.edu)

512.308-3584 Ext: 1644

[512.387-5789](tel:(512)%20387-5789)

7/9/2018 on Mondays, Wednesdays, and Saturdays.

Mondays and Wednesdays classes begin at 6:30-930 p.m. Saturday classes begin at 10 a.m - 2

**Program just launched 1 year ago**

 Microsoft Excel version 2016 or later.

Part time 7/9

Pre-Reqs:

Leading to the following Job titles:

Data Analyst, Data Engineer, Research analyst, business analyst, software engineer, systems engineer, database admin., sql developer,

data scientist (masters needed)

Check Bureau of Labor Stats bls.gov

Salaries?

Companies: ?

Talk to career services team

Do **linked in learning** courses in data analytics and excel…

**Coding**

Joel Spencer - Admissions Advisor

[512.387-5789](tel:(512)%20387-5789)

[bootcamp@trilogyed.com](mailto:bootcamp@trilogyed.com)

**Program just launched 3 years ago**

Curriculum:

<https://drive.google.com/file/d/0B6MV3osqMQYUbGZpZEl4cFlrbUE/view>

Problem solving & logic

See Khan academy video link

Part time 7/23

Full time 10/15 start

Coding Dojo is competition school

Leading to the following Job titles:

Front or back end web developer, full stack developer, web designer, systems engineer

**UX/UI Boot Camp (user experience & user interface)**

Joel Spencer - Admissions Advisor

[joel.spencer@utexas.edu](mailto:joel.spencer@utexas.edu)

512.772-4643 x 1024

For Graphic designers,

**Program just launched in March**

Part time Starts in Sept 25

T, R, Sa

Leading to the following Job titles:

Web developer, web designer, front-end developer, UX designer, UI designer or developer