intro

January 26, 2018

1 Welcome to QM 492

1.1 Exploratory Data Analysis and Visualization

- Instructor: Mohammad AlMarzouq
- Website: qmisr.github.io/mis492
- Syllabus: bit.ly/mis492_syl
- Slack : cbaqmis.slack.com

2 Requirements

- Anaconda Python V3.6 - Download here for mac/pc
- Get your **cba.ku.edu.kw email**
- Join **#492 in slack** and enable notifications for **all messages** (see instructions)
- Send **@dralmarzouq** a message with your ku.cba email to receive datacamp invite
- Signup to datacamp using the sent invite
- Signup for github.com and learn the basics of hosting your code projects on it

3 Expectations

- Python review in class first week only
    - Datacamp assignment
    - Explain as we go
    - Ask! (class/office hours)
- Attending class will involve lab work
    - Lab work to be submitted via slack for grading
- Weekly assignments, either through datacamp or problems
    - Received via email, or notified in class/slack
- 2 major projects, first is individual, the second is group based

4 Course Plan:

- 11 weeks of course work.
- 4 weeks to work on your final project

5 Course Work Plan:

- Week 1: Intro and Python primer.
- Week 2: Overview of Exploratory Data Analysis
- Week 3: Introduction to Pandas
- Week 4: Data cleansing and transformation
- Week 5: Advanced data transformation
- Week 6: Data Visualization

6 Course Work Plan (cont.):

- Week 7: Multiviriate Visualization
- Week 8 & 9: Review and Midterm

  - For groups and think about topic for final project

- week 10: collecting data from the net
- week 11: Introuction to Text Analysis*
- week 12: Introduction to Network Analysis*
- week 13 to 15: Final project (3 meetings minimum)

  * Time permitting

7 Grade Distribution

- 40% Homeworks and labwork
- 20% Midterm project
- 40% Final project

8 Projects:

- Midterm project:
- Design to evaluate skills from week 1 to 7
- Unified requirements
- Most likely inclass midterm

9 Projects (cont.):

- Final Project:
- Apply learned and self-learned skills
- Phased:

1. Proposal (class presentation)
2. 1st Submission (meeting)
3. 2nd Submission (meeting)
4. Final Submission (class presentation)

10 Recommended resources:

- Think Python: Your reference for the python language (Free online book)
- Learning with Python 3 (RLE): Another textbook for your reference (Free online book)
- Python for Data Analysis: Excellent book on Pandas and data analysis and visualization (Paid)
- Programming Collective Intelligence: Best introductory book to making use of data (Paid)
- Python Online Documentaion: Must always return to this for reference, see tutorial and library reference (Free).