

Notes to TAs

Dr. Jinjun Xiong (jx2308@columbia.edu)

Welcome and thanks for being a TA for APANPS4335

- Please send me your planned office hours for students
- Please send me a picture of you and one sentence to introduce yourself to the students (i.e., how you plan to help with students)
- Please be sure to attend the first lecture
 - Though the school requires you attending every lecture, I'm flexible about this
 - Please let me know if you plan otherwise

What I need from you

- Help create & grade the six (6) homework assignments per the syllabus
 - I'll give you the assignment ideas (see next few slides)
 - I'll review your proposed problems and solutions
 - Please give me your proposals two weeks before the assignment date for each
- Hold tutorial sessions on Python, R, Matlab for the students
 - One 30 minutes session in class (for SW installation & basic start-ups)
 - An one hour session during one of your office hours with students
- Grade the 3 in class quizzes
 - In-class quizzes through out the course, but only 3 of them will be graded
- Help register student teams (1-3 students/team) for mid-term and final projects
- Help register students for the optional in-class presentations (30 slots)

Homework Assignments

Homework	Assignment Date	Due Date	Content
#1	Friday, 1/27/2017	Friday, 2/10/2017	 Review and critique existing visualization from Data Visualization Gallery Create visualization for some existing dataset, using any visualization tools
#2	Friday, 2/10/2017	Friday, 2/24/2017	 Background knowledge about linear algebra, complexity, gradient, Hessian, and Newton's method for optimization
#3	Friday, 2/24/2017	Friday, 3/3/2017	Linear regressionClustering
Midterm project report	Friday, 2/17/2017	Sunday, 3/12/2017	
#4	Friday, 3/24/2017	Friday, 4/7/2017	Logistic regressionSupport vector machineDecision tree
#5	Friday, 4/7/2017	Friday, 4/21/2017	Ensemble learning and random forest
#6	Friday, 4/21/2017	Friday, 4/28/2017	NLPDeep learning
Final project report	Friday, 3/31/2017	Sunday, 4/30/2017	

Requirements on homework / quiz designs

 "All quizzes, homework and midterm/finals must have answer keys and/or rubrics. This is to ensure consistent grading across faculty and often students also want to know what the correct answers were."

Mid-term and final projects

- Both projects will be programming driven projects
- I need your help to mentor students for resolve any programming related issues
- I welcome your thoughts on good mid-term and final project ideas
 - If any ideas turn out to be conference paper worthy, you may be invited as a coauthor if your efforts justify it