Introduction to Data Science

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COURSE FUNDAMENTALS

INSTRUCTOR

Brian d'Alessandro

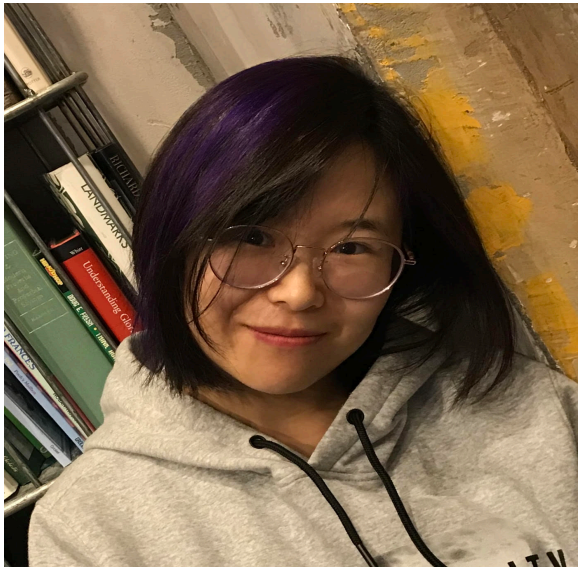
Bio

Education:
Undergrad: Rutgers, Math
Grad: NYU Stern, Statistics

Professional Experience
Capital One
ZocDoc
Facebook
Dstillery (AdTech)
Meetup.com (Social Web)
American Express (Credit/Risk)

Affiliations/Publications
ACM KDD
Big Data Journal
Machine Learning Journal
SIAM

SECTION LEADERS



Nan Wu
Email: nan.wu@nyu.edu

Office hours:
See syllabus

Lee Tanenbaum
Email: leedtan@gmail.com

Office hours:
See syllabus

GOALS OF THIS COURSE

- Understand what a Data Scientist is
- Approach applicable problems data-analytically
- Have hands-on experience mining data

PROGRAMMING!

In order to succeed and participate in this class, You will…

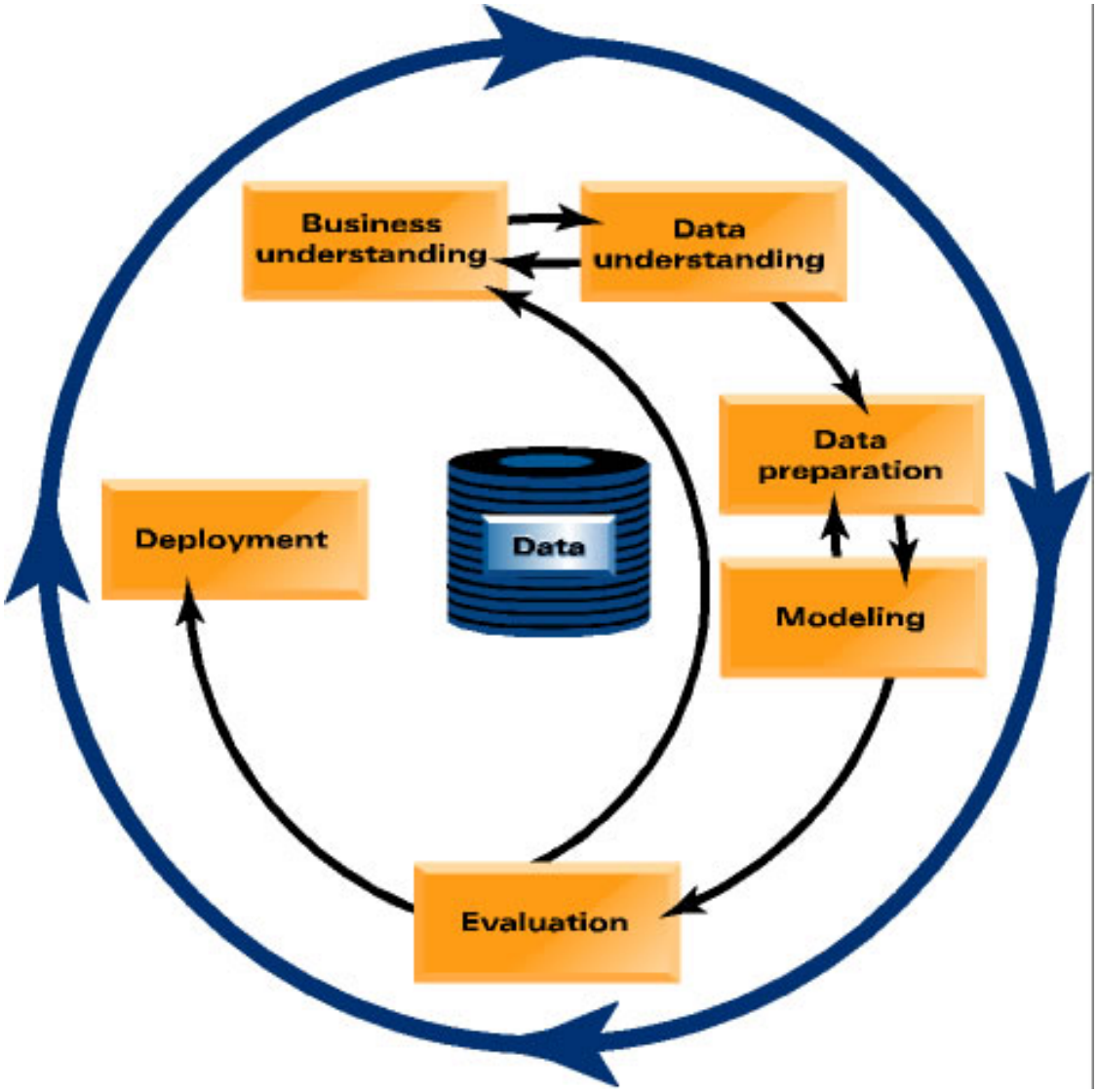
- Need access to a computer with admin privileges
- Have to learn and use the Python programming language.

Please see me after class if this is an issue.

LECTURE OUTLINE

This course will work in the same flow as a typical data mining project.

We'll also peel the layers of data mining like an onion, so the flow might not always be linear.



HOMEWORK

- Will be announced the week they're assigned
  - We'll spend time in class discussing what is expected
- Are all expected to be performed solo
  - Discussions are welcome and encouraged on the course forum
- Will involve Python analysis with discussion of results
  - Open questions will be assigned
  - Code and open answers to be turned in
- Syllabus is the de-facto guide to timing
  - See Syllabus for late policy

QUIZZES AND DISCUSSIONS

- Test your accumulated knowledge throughout the course
- Flex your case scoping muscles
- Keep you engaged and on-time!

FINAL PROJECT

The final project will pull together all of the elements you learn from this class and will simulate the experience of being a professional data scientist. Ultimately, we want you to be able to identify a problem, implement a solution, and demonstrate the value of your solution.

Milestones (due dates will be assigned)

1. Choose a team
2. Pick a dataset and a business problem, write a proposal
3. Explore and validate the utility of the data
4. Write a professional report