Week-1-Preparation

August 28, 2020

1 Install Anaconda & Jupyter Notebook

During the lectures, I will use heavily jupyter notebooks for writing Python code and I will ask you to follow along. So please install Jupyter notebook and get accustomed to it. One of the easiest way to up and run Jupyter notebook is to install Anaconda distribution for Python.

For Windows users - installation and working with notebook

For Mac users

2 Git installation

Git is a very commonly used version control system. When you start working on complicated projects using a reliable version control system is a must. So again, install and start working with git. Sooner is better.

- For Mac and Linux users: You don't have to install git as it comes installed on your computers.
- For Windows users please follow the directions in this video:

How to install and config git for Windows 10

For a detailed in depth git tutorial you can watch the following: Git tutorial for beginners

3 Connect Your Github with Your Local Computer

Github is providing git-version control system on the cloud so that you can collaborate with other software engineers, data scientists, etc.

You might have to sign-up first.

Creating a Github account and setting it up

4 Slack:

This is totally optional. Given that we will be all online, I think having a communication channel other than email might create a better class dynamic. But if don't want to join you can opt-out.

umbcdatasci slack workspace - join #data602_fall_2020

5 Readings

For the first lecture read(watch) the material below (Except the last one). I want you to be able to answer following questions:

- What is machine learning?
- What is AI?
- How Ai is different than machine learning?
- How machine learning is different than coding?
- How machine learning is different than statistics?
- Can you give some explicit examples in which machine learning is applied?
- What are the type of the questions machine learning attempts to solve?

IBM - What is Machine Learning

Andrew Ng - What is Machine Learning

Andrew Ng - Artificial Intelligence is the New Electricity

Chapter-2 of ISLR

6 Extra Resources (You can ignore this part)

6.1 For Git&Github

Another installation tutorial of git for Windows 10

Git-Tutorials

Git immersion - step by step tutorial

Interactive Git tutorial

Another Set-up Github account tutorial

Longer but clear introduction to git and github

A video that I recorded: What is Git?

A video that I recorded: Using Git from terminal

6.2 For practicing Python

Python tutorials topic by topic

Another hands-on tutorial for python

Codewars - interactive python practices

If you like challenges for Python

6.3 For Terminal (Shell programming language)

Basic commands for terminal

6.4 On Machine Learning and AI

Michael I. Jordan - on Machine Learning and Future of AI

Princeton - Theoretical Machine Learning - What is Machine Learning?