

BIG DATA, MACHINE LEARNING, AND THEIR REAL WORLD APPLICATIONS

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Outline

Week 01, 06/28 - 07/04, Day 2

Tuesday (Pre-Session Readings and Assignments):

- Access the course github repo @ cu-hsp-learning to connect to all the data sources will be using for class @ data.
 - Clone the repo and store the root somewhere easy to access. (*I suggest storing it on your desktop for the duration of the course.*)

Tuesday (morning session ~ 9:10am to 11:00am):

- Continued... Introduction to big data discussion.
 - Unstructured (*Text, Image, Video, Speech, etc.*)

Tuesday (afternoon session ~ 1:10pm to 3:00pm)

- Introduction to machine learning discussion.
 - Supervised vs Unsupervised Learning.
 - Classification, Regression, Time Series and Clustering Problems.
 - Classical Machine Learning (*Linear Models, Decision Trees, Random Forest, Naïve Bayes, Support Vector Machines, etc.*) (*structured data focused*)
 - Deep Learning (*Tensorflow and Keras in Python and R*) (*image, text, and structured data focused*)

Tuesday (Post-Session Readings and Assignments):

- Watch the short video @ The future of Machine Learning and its Impact on Your Everyday Life (*3 minutes 55 seconds*) and write down some ideas of how you could use machine learning in your everyday life. (*... be prepared to discuss in class.*)