

# Topics & Readings - Module 1a (1 of 4)

## ► Machine Learning Overview Topics

- ML Introduction and definition
- ML Models
  - Underfitting
  - Overfitting
  - Goldilocks Model
- Types of ML Tasks
  - Supervised Learning
  - Unsupervised Learning
  - Reinforcement Learning
- Supervised Learning Example
  - Classification of Iris Data
- Unsupervised Learning Example
  - Clustering of Wholesale Customer Data

# Topics & Readings - Module 1a (2 of 4)

## ► Machine Learning Overview Topics (cont.)

- ML Data Structure
  - Structured Data
  - Semi-structured Data
  - Unstructured Data
- ML Tasks
- ML Applications

# Topics & Readings - Module 1a (3 of 4)

## ► Data Exploration Topics

- Features or variables
- Target Features or class labels
- Feature Space
- Types of data
  - Numerical
  - Categorical
- Types of Plots
  - Scatter Plots
  - Histogram Plots
  - Density Plots
  - Bar Plots
  - Box-and-whisker Plots
  - Hexbin Plots

# Topics & Readings - Module 1a (4 of 4)

## ► Readings

- Data Science and Big Data Analytics
  - Chapter 3, Section 3.2, Exploratory Data Analysis.