**Learning Objectives**

After this week’s class you are expected to able to do the following:

1. Demonstrate comprehension of what machine learning is and the types of applications it has
2. Synthesize your understanding of machine learning topics to solve problems and interpret case studies. This includes…
   1. Classification of data based on similarity (or distance) calculations
   2. Training data sets
   3. Test data sets
   4. The purpose of data normalization
   5. Evaluating the efficacy of the model
3. Apply the K-nearest neighbors model to machine learning problems with understanding of its constituent elements and parameters. This includes elements listed above as well as…
   1. The k-parameter