## **Machine learning** involves building mathematical models to help understand data.

**Machine learning** is where these computational and algorithmic skills of data science meet the statistical thinking of data science.

## Categories of Machine Learning

***Supervised learning*:** Models that can predict labels based on labeled training data.

* + ***Classification*:** Models that predict labels as two or more discrete categories
  + ***Regression*:** Models that predict continuous labels

***Unsupervised learning*:** Models that identify structure in unlabeled data.

* + ***Clustering*:** Models that detect and identify distinct groups in the data
  + ***Dimensionality reduction*:** Models that detect and identify lower-dimensional structure in higher-dimensional data