t-Distributed Stochastic Neighbor Embedding (t-SNE) was first introduced by van der Maaten and Hinton in 2008. It is a non-linear probabilistic dimensionality reduction method. It maps high-dimensional data to lower dimensions, such as two or three, which is suitable for human observation. Unlike PCA, which looking at directions/axes to maximize information, the idea of t-SNE is to change the Euclidean distances between points into conditional probabilities. Then, using Student-t distribution to determine the similarity between one data point to another.