

Stochastic neighbor embedding (SNE)

Stochastic neighbor embedding is a way to visualize high-dimensional data in low dimensions. The goal is to implement and optimize the $O(n^2)$ version in [1]. A possible extension is the $O(n \log(n))$ version in [2], which approximates [1].

Literature:

[1] Laurens Van Der Maaten and Geoffrey Hinton, "Visualizing data using t-SNE," *Journal of Machine Learning Research*, vol. 9, pp. 2579–2605, Nov 2008.

[2] Laurens Van Der Maaten, "Accelerating t-SNE using tree-based algorithms.," *Journal of machine learning research*, vol. 15, no. 1, pp. 3221–3245, 2014.