Dimensionality reduction (DR) task overview

- A small video with an example of what DR is
  Dimensionality Reduction
- A lecture from Stanford University:
  Lecture 46 — Dimensionality Reduction - Introduction | Stanford University

PCA

- An explanation of PCA from StatQuest:
  StatQuest: Principal Component Analysis (PCA), Step-by-Step
- An explanation of PCA from an author of courses on Udacity:
  Principal Component Analysis (PCA)

SVD

- A lecture from Stanford University:
  Lecture 47 — Singular Value Decomposition | Stanford University

t-SNE

- A blog post from DataCamp about t-SNE:
  https://www.datacamp.com/community/tutorials/introduction-t-sne?utm_source=adwords_ppc&utm_campaignid=1455363063&utm_adgroupid=65083631748&utm_device=c&utm_keyword=&utm_matchtype=b&utm_network=g&utm_adpostion=&utm_creative=332602034358&utm_targetid=aud-390929969673:dsa-429603003980&utm_loc_interest_ms=&utm_loc_physical_ms=9047073&gclid=Cj0KCQjww_f2BRC-ARIsAP3zarEuvGIVjjJbhVLfxNSoPC_pJr45dnYT-tgU4GYLopUZm0NIUeFabnYaAsUzEALw_wcB
- Original research paper:
  http://www.jmlr.org/papers/volume9/vandermaaten08a/vandermaaten08a.pdf

UMAP

- A documentation page:
  https://umap-learn.readthedocs.io/en/latest/

Performance validation metrics

- How to choose the number of components when working with PCA:
  https://www.mikulskibartosz.name/pca-how-to-choose-the-number-of-components/

- How to choose the number of components when working with SVD: https://chrisalbon.com/machine_learning/feature_engineering/select_best_number_of_components_in_tsvd/

Additional

- UMAP: a paper with the algorithm description https://arxiv.org/abs/1802.03426
- SVD: A series of small lectures about SVD: Singular Value Decomposition (SVD): Overview
- SVD: An explanation of matrix factorization through gradient descent from an author of courses on Udacity: How does Netflix recommend movies? Matrix Factorization
- NMF
    - Videos:
        - Non-Negative Matrix Factorization (NMF) | Multiplicative Update Rules By Lee And Seung
        - 10701: Non-Negative Matrix Factorization
        - Nonnegative Matrix Factorizations for Clustering, Haesun Park, Georgia Institute of Technology
    - Scikit-learn pages:
        - https://scikit-learn.org/stable/modules/generated/sklearn.decomposition.NMF.html?highlight=nmf#sklearn.decomposition.NMF
        - https://scikit-learn.org/stable/auto_examples/applications/plot_topics_extraction_with_nmf_lda.html#sphx-glr-auto-examples-applications-plot-topics-extraction-with-nmf-lda-py