CS584 Machine Learning (Spring 2022) Extensive Reading References

Elastic Net: Zou and Hastie. Regularization and variable selection via the elastic net., Journal of the royal statistical society: series B (statistical methodology), 2005. (Also KM Ch. 13.5.1)
Group Lasso: Yuan and Lin, Model Selection and Estimation in Regression with Grouped Variables, Journal of the Royal Statistical Society. Series B (statistical Methodology), 2006. (Also KM Ch. 13.5.2)

MLP universal approximator: Youtube video
(www.youtube.com/watch?v=lkha188L4Gs&list=PLp0K3kfddPwz13VqV1PaMXF6V6dYdEsj&index=3)

Sparse representation: Wright et al, Robust face recognition via sparse representation, IEEE TPAMI, 2008
Gaussian process: CB Ch. 6.4, KM, Ch.

LPP: He and Niyogi, Locality preserving projections, NIPS, 2003
ResNet: He et al., Deep Residual Learning for Image Recognition, CVPR 2016 (best paper)

Affinity Propagation: Frey et al., Clustering by passing messages between data points, Science, 2007.
Denpeak: RODRIGUEZ and LAIO, Clustering by fast search and find of density peaks, Science, 2014

SSC: Elhamifar et al, Sparse subspace clustering: Algorithm, theory, and applications. IEEE TPAMI, 2013.
LRR: Liu et al. "Robust recovery of subspace structures by low-rank representation." IEEE TPAMI, 2012

2DPCA: Yang et al., Two-dimensional PCA: a new approach to appearance-based face representation and recognition, IEEE TPAMI, 2004

Robust PCA: https://candes.su.domains/teaching/math301/Lectures/ADMM.pdf
Random projection: Dasgupta and Gupta. An elementary proof of a theorem of Johnson and Lindenstrauss." Random Structures & Algorithms, 2003

NMF: Lee and Seung, Learning the parts of objects by non-negative matrix factorization, *Nature*, 1999
LLE: Roweis and Saul, Nonlinear dimensionality reduction by locally linear embedding, *Science*, 2000
LE: Belik and Niyogi, Laplacian eigenmaps for dimensionality reduction and data representation, Neural computation, 2003
DNN: Hinton and Salakhutdinov, Reducing the dimensionality of data with neural networks, *Science*, 2006

IsoMAP: Tenenbaum, et al., A global geometric framework for nonlinear dimensionality reduction, Science, 2000
MVU: Weinberger et al, Learning a kernel matrix for nonlinear dimensionality reduction, ICML, 2004
MFA: Yan et al., Graph embedding and extensions: a general framework for dimensionality reduction, IEEE TPAMI, 2006

GHF: Zhu et al, Semi-supervised learning using gaussian fields and harmonic functions, ICML, 2003 (best paper)
LGC: Zhou et al., Learning with local and global consistency, NIPS, 2004
Manifold regularization: Belkin, et al. Manifold regularization: A geometric framework for learning from labeled and unlabeled examples. JMLR, 2008

GNN: Scarselli et al. The graph neural network model, IEEE TNN 2008.
GCN: Kipf and Welling, SEMI-SUPERVISED CLASSIFICATION WITH GRAPH CONVOLUTIONAL NETWORKS, ICLR, 2017

Mixup: Zhang et al, mixup: BEYOND EMPIRICAL RISK MINIMIZATION, ICLR, 2018
MixMatch: Berthelot et al,, MixMatch: A Holistic Approach to Semi-Supervised Learning, NeurIPS, 2019

GAN: Goodfellow, et al. Generative adversarial nets, *NIPS, 2014*.
VAE: Kingma and Welling, Auto-encoding variational bayes, NIPS, 2014
Contrastive learning: Chen at al., A simple framework for contrastive learning of visual representations, ICML, 2020

FGSM: Szegedy et al., Intriguing properties of neural networks, arXiv, 2014
PGD/AdvT: Madry et al., Towards Deep Learning Models Resistant to Adversarial Attacks, ICLR, 2018
Poisoning/Backdoor attack:
CW: Carlini and Wagner, Towards evaluating the robustness of neural networks, IEEE SP, 2017
(Fast) AdvT: Eric Wong et al. Fast is better than free: Revisiting adversarial training. ICLR, 2020.

False sense of security: Athalye et el., Obfuscated gradients give a false sense of security: Circumventing defenses to adversarial examples, ICML, 2018 (best paper)
Hyperparameter stealing: Wang and Gong, Stealing hyperparameters in Machine Learning, IEEE SP, 2018

FedAvg: McMahan et al., Communication-efficient learning of deep networks from decentralized data," AISTATS, 2017.
FedProx: Li et al., Federated optimization in heterogeneous networks, MLSys, 2020