

Deep ANNs Continued

Patricia Riddle

CS 760

Convolutional Neural Networks

- <https://adeshpande3.github.io/adeshpande3.github.io/A-Beginner's-Guide-To-Understanding-Convolutional-Neural-Networks/>
- <http://neuralnetworksanddeeplearning.com/chap6.html>
- <http://cs231n.stanford.edu/>
- <https://ujjwalkarn.me/2016/08/11/intuitive-explanation-convnets/>
- <https://medium.com/@ageitgey/machine-learning-is-fun-part-3-deep-learning-and-convolutional-neural-networks-f40359318721>

Activation Functions

- https://en.wikipedia.org/wiki/Activation_function
- [https://en.wikipedia.org/wiki/Rectifier_\(neural_networks\)#ELUs](https://en.wikipedia.org/wiki/Rectifier_(neural_networks)#ELUs)
- Self Normalizing Neural Networks - <https://arxiv.org/abs/1706.02515>
(out perform Random Forests)

Generative Adversarial Neural Networks

- <https://arxiv.org/pdf/1406.2661.pdf>

Bayesian Neural Networks

- <http://bayesiandeeplearning.org/slides/nips16bayesdeep.pdf>
- http://mlg.eng.cam.ac.uk/yarin/PDFs/2015_UCL_Bayesian_Deep_Learning_talk.pdf

Visualization of Deep NN

- <http://yosinski.com/deepvis>
- <https://arxiv.org/pdf/1509.06321.pdf>
- <https://arxiv.org/pdf/1311.2901.pdf>
- <https://arxiv.org/pdf/1704.07911.pdf>

Scary

- Black Box Attack Against Machine Learning -
<https://arxiv.org/pdf/1602.02697.pdf>
- Understanding Deep Learning Requires Rethinking Generalization -
<https://arxiv.org/pdf/1611.03530.pdf>

Advanced Optimization

- [http://ufldl.stanford.edu/wiki/index.php/Gradient checking and advanced optimization](http://ufldl.stanford.edu/wiki/index.php/Gradient_checking_and_advanced_optimization)