

Basics

ML Crash Course <https://ml.berkeley.edu/blog/2016/11/06/tutorial-1/>

Cross entropy <http://colah.github.io/posts/2015-09-Visual-Information/>

Python tutorial: <http://www.learnpython.org/>

Python/Numpy tutorial: <http://cs231n.github.io/python-numpy-tutorial/>

Reference for math/probability: chapter 2, 3 and 4 of <http://www.deeplearningbook.org/>

Tensorflow Crash Course: <http://nicklocascio.com/tensorflow-crash-course>

Deep Learning, foundations

Intro-level deep learning book: <http://neuralnetworksanddeeplearning.com/>

Advanced deep learning book: <http://www.deeplearningbook.org/>

Lots of links to topics: <http://yerevann.com/a-guide-to-deep-learning/>

Deep Learning/TensorFlow Udacity Course:
<https://www.udacity.com/course/deep-learning--ud730>

Yann LeCun's 'Efficient Backpropagation' (goes through a lot of basics on how/why to train networks a certain way, including some theory behind it):
yann.lecun.com/exdb/publis/pdf/lecun-98b.pdf

Deep Learning, advanced/state-of-the-art:

Guide to Papers: <https://github.com/songrotek/Deep-Learning-Papers-Reading-Roadmap>

Curating arXiv: arxiv-sanity.com

Summaries of Papers: <http://www.shortscience.org/>

Papers from Conferences:

- NIPS: <https://nips.cc/Conferences/2016/AcceptedPapers>
- ICLR: <https://openreview.net/group?id=ICLR.cc/2017/conference>
- ICML: http://icml.cc/2016/?page_id=1649

- KDD: <http://www.kdd.org/kdd2016/program/accepted-papers>

Blogs etc:

Deep Learning Newsletter: <http://www.wildml.com/newsletter/>

ML subreddit: <https://www.reddit.com/r/MachineLearning/>

Andrej Karpathy's blog: <http://karpathy.github.io/>

Chris Olah's blog: <http://colah.github.io/>

More on specific topics:

RNNs / Sequential Modeling:

- Attention & Memory: <http://distill.pub/2016/augmented-rnns/>
- Stanford CS 224 slides: <http://cs224d.stanford.edu/syllabus.html>
- LSTMs, vanishing gradient: <http://harinisuresh.com/2016/10/09/lstms/>
- Vanishing Gradient:
http://neuralnetworksanddeeplearning.com/chap5.html#the_vanishing_gradient_problem
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CNNs / Vision:

Multimodal Problems:

Generative Models:

Reinforcement Learning: