ml4a-links

learning from AI forecasts
lda 2 vec
https://github.com/Evolving-AI-Lab/synthesizing/
DL trends neural nets

arxiv-sanity
http://control.kylemcdonald.net/arxiv/#0
https://www.youtube.com/watch?v=oPGVsoBonLM
https://twitter.com/sirajology
https://sites.google.com/site/wimllist/
http://www.arxiv-sanity.com/
visualizing convnets
neuralnetsdemystified
visualize a neural net step-by-step
visualizing convnets
vae in tensorflow
2-min papers
francis notes
step-by-step NN
scholarpedia
autoencoders + tutorial
keras deepdream
aubun blog [post]
colorization
semantic style transfer
cv -> deep learning
schmidhuber interview (history) [2]
t-SNE illustration
racist/sexist ml models
fairness in ml
simple questions thread
ml enrollment up 600%
guide to convolution
are we there yet
deepdream tensorflow
kyle audio notebooks

attention demo
RT style transfer, perceptual similarity
hardmaru GANs + MNIST
iamtrask LSTM guide
pose estimation [pic]
text analytics membership to newsgroup gensim
http://arxiv.org/pdf/1604.00289v1.pdf
arxiv pictures
saliency maps and guided backprop in lasagne
rt stylenet [twitter]
Trans AI
harvard nlp
https://github.com/alexjc/neural-doodle
GRAN
reinforcement learning
gen sentences in embedded space
list of tensorflow things
bias variance tradeoff
style transfer in videos
tensorflow playground
good,bad,ugly, tensorflow
chatbots argue

https://github.com/Evolving-AI-Lab/synthesizing

TENSORFLOW
- tensorflow tutorials
- pkmital tutorials
- DRAW

PICTURES
pose estimation
laetitia
convnets (filters)
graph lstm [arxiv
fight cancer
deconvolution slides (semantic segmentation)
pictures of annotation and localization [densecap]
diversity in CS (olga russakovsky) [outreach]
SAILORS (fei-fei li)

generative choreography (chor-rnn) [tweet]
nikhil blog (LSTM)
apaszke
visualizations

GREAT: list of RNN topics/links

memo links:
https://medium.com/@memoakten/selection-of-resources-to-learn-artificial-intelligence-machine-learning-statistical-inference-23bc56ba655#.jrcmcptn7
https://github.com/memo/ai-resources

RNN
- schmidhuber
- deep dive into rnn
- dl4j
- resources

TRANSLATING?
- russian (colah LSTM -> russian)

RECENT READS
- learn to code nn
- karpathy understanding cnn
- deepvis
- ml in a week
- rnn + super mario
- 3d autoencoder
- memo's review of DL
- tyka talk

- autoencoders in TF
- glossary

UNSORTED
- http://cs.stanford.edu/people/karpathy/nips2015/
- SIGGRAPH
- http://www.wimlworkshop.org/
- zeiler cnns: https://www.youtube.com/watch?v=ghEmQSxT6tw
- convnets in 10min
- karpathy blog
- how convnets see world (fchollet)
- benchmarks (are we there yet)
- nn step by step
- http://www.scholarpedia.org/article/Deep_Learning
- pkmital tensorflow tutorials
- tensorflow medium tutorial
- http://paperscape.org/

MACHINE LISTENING
http://benanne.github.io/2014/08/05/spotify-cnns.html
http://blog.fastforwardlabs.com/post/145708386938/machine-listening-interview-with-juan-pablo-bello

HARDWARE
- guide to hardware
- reddit

COURSES
- stanford convents [github] [stanford] [+karpathy]
- hinton neural nets
- deep learning freitas
- ng machine learning

READ
- thinking machines
- visual ML
- brief history

- christian perone
- new style transfers
- resources
- convnets
- otoro blog
- vae explanation
- primer
- hinton dim reduction
- neural nets and deep learning
- simple explanation
- cnn activations
- deep learning tutorials
- dive into ML
- deep learning reading list
- Theano tutorial + video + video + v ideo
- DL book
- awesome ML
- DL resources
- ml school
- hinton coursera
- colah tutorials
- CNN tutorial (slides)
- RNN tutorials
- awesome deep learning
- deel pearling bengio
- karpathy video
- generating sequences with RNNs
- generating captions
- understanding LSTM
- backpropagation examples
- deeplearning.TV (simple youtube lectures)
- autoencoding pixels
- tensorflow play with nn in browser
- must know tricks
- hassabis interview
- datasets
- http://cnnlocalization.csail.mit.edu/
- deconv slides

CODE
- RasterFairy (quasimondo)
- LeNet demo (YC's website)

- frameworks
  - Keras (hello world) (vs. scikit) (deepdream)
  - tflearn
  - Lasagne [lasagne recipes]
  - blocks
  - torch autograd
  - tensorflow [tdb]
- audio
  - GRUV
  - andy sarroff
  - sound morphig (humphrey)
  - gen sound with rnn
- midi
  - neuralnetmusic
  - biaxial music composition (blog)
  - polyphonic music
- char-rnn
  - Torch-RNN
  - word-rnn
  - chainer-lstm
  - yoav goldberg
- vocab
  - skip thoughts
  - neural-storyteller [med]
- generate
  - torch-gan
  - lasagne draw
  - DRAW architecture
  - convolutional autoencoder + vrae (frnsys)
  - vrae
  - tom white: DRAW + convAE + parmesan
  - RNN monet generation [blog] [code]
  - diffusion probabilistic?
  - eyescream
  - deep visualization [blog] [code]
- classification
  - openface (face recognition)
  - semantic segmentation [1] [2]
  - neuraltalk [neuraltalk2]
  - sentence classification
  - describing videos
  - image captioning
- tSne

    - textSne
    - kyle word2vec antonyms
    - kyle word similarity
    - class similarities
    - cloud2grid + rasterfairy
  - word2vec
    - transorthogonal linguistics
    - context summarization
    - gender binary
    - seq2seq tutorial
    - voynich
  - gan
    - LSUN-GAN
  - nlp
    - scrape google translate
    - pronouncing (aparish)
    - nn tasks
  - mir
    - librosa
    - music structure (nieto)
  - misc
    - image upsampling

PROJECTS
  - game of life CNN
  - drum loops char-rnn http://www.theinquisitivists.com/whitepapers/using-autoharp-and-a-character-based-rnn-to-create-midi-drum-loops
  - amazon products
  - paintings + svd
  - 50k fonts

==========

READ
  - arxiv sanity
  - GitXiv

- Reddit ML
- twitter ML
- hackernews

HISTORY
- history of DL
- DNN overview

TECHNICAL ARTICLES
how to combat unbalanced classes http://machinelearningmastery.com/tactics-to-combat-imbalanced-classes-in-your-machine-learning-dataset/
imbalanced data http://www.svds.com/learning-imbalanced-classes/
great article on ATTENTION (olah) http://distill.pub/2016/augmented-rnns/
whats wrong with auto encoders https://danielwaterworth.github.io/posts/what's-wrong-with-autoencoders.html
unreasonable confusion of VAEs https://jaan.io/unreasonable-confusion/
GANS explained http://kvfrans.com/generative-adversial-networks-explained/?utm_content=buffere4050&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer
deep completion http://bamos.github.io/2016/08/09/deep-completion/
DARN image -> depth, shading, normals, etc www.creativeai.net/posts/AK7pngdsWDEfJmwFj/darn-a-deep-adversial-residual-network-for-intrinsic-image
transfiguring portraits
transfer learning on images in keras
https://re-publica.de/16/session/know-your-terrorist-credit-score
talks: crawford re:publica, blaise @ AMI, gene/kyle/alexis @ eyeo, writing (atduskgreg), mike tyka art of neural nets
https://code.facebook.com/posts/1587249151575490/a-path-to-unsupervised-learning-through-adversarial-networks/
http://dmlc.ml/mxnet/2016/06/20/end-to-end-neural-style.html

ISSUES/ETHICS
ml fairness http://blog.mrtz.org/
how ml decision making is unfair: https://medium.com/@mrtz/how-big-data-is-unfair-9aa544d739de#.mwmwj32du
https://vimeo.com/163292139
https://openai.com/blog/concrete-ai-safety-problems/

NLP / TEXT / RNN
https://github.com/explosion/spaCy/tree/master/examples/

keras_parikh_entailment
http://sebastianruder.com/secret-word2vec/index.html
https://civisanalytics.com/blog/data-science/2016/09/22/neural-network-visualization/
lstm-vis http://lstm.seas.harvard.edu/
historical word embeddings http://nlp.stanford.edu/projects/histwords/
textsum https://github.com/tensorflow/models/tree/master/textsum
dataset hub (nlp)
dbpedia (nlp)
http://nbviewer.jupyter.org/github/fbkarsdorp/doc2vec/blob/master/doc2vec.ipynb
clickbait clusters http://minimaxir.com/2016/08/clickbait-cluster/
language modeling billion words http://torch.ch/blog/2016/07/25/nce.html
demystifying word2vec https://buss_jan.gitbooks.io/word2vec/content/chapter2.html
https://github.com/facebookresearch/fastText
tensorflow -> word2vec
keras text classification
http://deeplearning4j.org/lstm.html
http://nikhilbuduma.com/2015/01/11/a-deep-dive-into-recurrent-neural-networks/

SOUND
http://news.mit.edu/2016/artificial-intelligence-produces-realistic-sounds-0613
http://www.creativeai.net/posts/vo2o9qzrhR8pELzyi/convolutional-recurrent-neural-networks-for-music
music auto-tagging: https://github.com/keunwoochoi/music-auto_tagging-keras
wavenet https://deepmind.com/blog/wavenet-generative-model-raw-audio/
https://github.com/willianjusten/awesome-audio-visualization
Who Needs Genres When There Is Data? spotify related artists
www.decibelsanddecimals.com/dbdblog/2016/6/13/spotify-related-artists
Music Transcription with Convolutional Neural Networks https://www.lunaverus.com/cnn

RESOURCES
http://course.fast.ai/
sirajology
https://github.com/ujjwalkarn/Machine-Learning-Tutorials#general-
https://github.com/songrotek/Deep-Learning-Papers-Reading-Roadmap
https://github.com/terryum/awesome-deep-learning-papers
awesome tensorflow (jtoy)
memo ai resources https://github.com/memo/ai-resources https://medium.com/artists-and-machine-intelligence/selection-of-resources-to-learn-artificial-

intelligence-machine-learning-statistical-inference-23bc56ba655#.ohw4bohx5

ARTICLES

pamela mcgoldrick https://www.edge.org/responses/q2015

https://tryolabs.com/blog/2016/12/06/major-advancements-deep-learning-2016/

https://gab41.lab41.org/lab41-reading-group-deep-compression-9c36064fb209#.elf9bmu3j compression

tensorflow in a nutshell https://medium.com/@camrongodbout/tensorflow-in-a-nutshell-part-three-all-the-models-be1465993930#.7lizpi7jt

https://zo7.github.io/blog/2016/09/25/generating-faces.html

http://www.nextplatform.com/2016/09/14/next-wave-deep-learning-applications/

https://www.technologyreview.com/s/602317/self-driving-cars-can-learn-a-lot-by-playing-grand-theft-auto

EDU

http://brohrer.github.io/how_convolutional_neural_networks_work.html

lin algebra: https://www.youtube.com/playlist?list=PLZHQObOWTQDPD3MizzM2xVFitgF8hE_ab

http://setosa.io/ev/eigenvectors-and-eigenvalues/

deep learning for complete beginners http://online.cambridgecoding.com/notebooks/cca_admin/deep-learning-for-complete-beginners-recognising-handwritten-digits

graves RNN hallucinations https://www.youtube.com/watch?v=-yX1SYeDHbg&feature=youtu.be&t=41m50s

ml is fun https://medium.com/@ageitgey/machine-learning-is-fun-part-5-language-translation-with-deep-learning-and-the-magic-of-sequences-2ace0acca0aa#.ic9zp4z4q

ml is fun 5 https://medium.com/@ageitgey/machine-learning-is-fun-part-5-language-translation-with-deep-learning-and-the-magic-of-sequences-2ace0acca0aa#.wnzq7g2pf

imagenet + keras http://www.pyimagesearch.com/2016/08/10/imagenet-classification-with-python-and-keras/

hugo larochelle's classes https://www.youtube.com/playlist?list=PL6Xpj9I5qXYEcOhn7TqghAJ6NAPrNmUBH

t-SNE tutorial

memo ai resources

https://github.com/jtoy/awesome-tensorflow

https://www.oreilly.com/learning/hello-tensorflow

https://medium.com/@ilblackdragon/tensorflow-tutorial-part-1-c559c63c0cb1#.4e7usb5tz

CODE
https://github.com/daijifeng001/MNC
soundnet
http://dmitryulyanov.github.io/audio-texture-synthesis-and-style-transfer/
https://github.com/explosion/spaCy/tree/master/examples/keras_parikh_entailment
https://github.com/ujjwalkarn/Machine-Learning-Tutorials#general-
spectral style transfer for human motion https://www.youtube.com/watch?v=NYDeH-knnAI
MultiGPU-VAE-GAN in Tensorflow great documentation https://github.com/timsainb/Tensorflow-MultiGPU-VAE-GAN?utm_content=buffercd444&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer
keras neural-doodle https://github.com/fchollet/keras/blob/master/examples/neural_doodle.py
tinyvideo GANs http://web.mit.edu/vondrick/tinyvideo/
keras stylenet https://github.com/titu1994/Neural-Style-Transfer/blob/master/INetwork.py
RNNs in Tensorflow http://www.wildml.com/2016/08/rnns-in-tensorflow-a-practical-guide-and-undocumented-features/
text to image https://github.com/paarthneekhara/text-to-image
http://bamos.github.io/2016/08/09/deep-completion/
https://github.com/carpedm20
transfer learning on images in keras
https://github.com/keunwoochoi/
tensorflow deepdream: https://github.com/tensorflow/tensorflow/blob/master/tensorflow/examples/tutorials/deepdr...

DATASETS/MODELS
https://github.com/fchollet/deep-learning-models
keras high-level models https://github.com/fchollet/deep-learning-models
goal's image sets
hotel reviews analysis
https://www.cia.gov/library/readingroom/collection/crest-25-year-program-archive

DATA
- caffe model zoo
- 3d rgbd scans
- awesome list of datasets
- huge midi collection
- datasets

- fonts
- coco-text
- cv datasets
- celeb faces + [1]
- enron
- freesound
- js bach midi
- movies + books
- twitter images
- million song db
- arabic, tamil
- 3dwarehouse
- public datasets http://www.datasciencecentral.com/m/blogpost?id=6448529%3ABlogPost%3A268197

ETC

karpathy quora https://twitter.com/karpathy/status/771447001103773697
https://github.com/karpathy/paper-notes/blob/master/wikireading.md
http://blog.evjang.com/2016/08/variational-bayes.html
https://github.com/oreillymedia/t-SNE-tutorial
cmd line
http://deeplearninggallery.com/

CLASSES

- heather [1] [2]
- patrick hebron
- rebecca kadenze
- cs231n

IDEAS

- MSDB metadata -> char-rnn fake albums + covers (GAN)
- t-SNE visualizations of media
- generative poetry (forced rhyme)
- twitter bots conversing w/ each other

http://kevinhughes.ca/blog/tensor-kart

http://blog.otoro.net/2017/01/01/recurrent-neural-network-artist/

NMT neural machine translation http://opennmt.net/

tutorial on image segmentation with fcn http://warmspringwinds.github.io/tensorflow/tf-slim/2017/01/23/fully-convolutional-networks-(fcns)-for-image-segmentation/
http://www.gitxiv.com/posts/vK86w9DdEK8KNHpjk/unsupervised-cross-domain-image-generation
https://www.reddit.com/r/MachineLearning/comments/5mfjq0/p_king_man_woman_is_queen_but_why/

magenta + stylenet https://github.com/tensorflow/magenta has docker image

CLEVR (great) http://cs.stanford.edu/people/jcjohns/clevr/

jack clark list http://us13.campaign-archive1.com/home/?u=67bd06787e84d73db24fb0aa5&id=6c9d98ff2c

https://github.com/facebookresearch/fastText/blob/master/pretrained-vectors.md

https://github.com/eriklindernoren/ML-From-Scratch

https://research.google.com/audioset/dataset/index.html
https://blog.sourced.tech/post/lapjv/

sketch retrieval https://github.com/ymcidence/DeepSketchHashing
sketch datasets http://cybertron.cg.tu-berlin.de/eitz/projects/classifysketch/

essence lin alg https://www.youtube.com/channel/UCYO_jab_esuFRV4b17AJtAw
https://medium.com/slavv/learning-machine-learning-on-the-cheap-persistent-aws-spot-instances-668e7294b6d8#.drkfh0ru1

https://github.com/yunjey/pytorch-tutorial/blob/master/README.md