Resources - click here

DAY 01

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What to do

Learn exactly what is Deep learning, difference between AI, ML and DL. History of neural networks.

Resources - click here

DAY 02

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What to do

Learn about neural networks and how the human brain inspired researchers to create neural networks.

Resources - click here

DAY 03

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What to do

Learn how to build neural networks using TensorFlow or PyTorch...don't worry if you don't know anything..just try to build it.

Resources - click here

DAY 04

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What to do

Build linear regression, logistic regression models using neural networks. And compare how they are performing with scikit learn implementation.

Resources - click here

DAY 05

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What to do

Learn more about Multi layer perceptron.

Resources - click here

DAY 06

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What to do

Build a simple multi layer perceptron using TensorFlow or Pytorch

Resources - click here

DAY 07

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What to do

Learn about Gradient descent and its variants

Resources - click here

DAY 08

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What to do

Learn about chain rule in differentiation.

Resources - click here

DAY 09

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What to do

learn about loss functions and how loss is calculated.

Resources - click here

DAY 10

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What to do

learn about backpropagation

Resources - click here

DAY 11

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What to do

Backpropagation takes time to understand. You can also utilize this day to learn more about it.

Resources - click here

DAY 1 2

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What to do

Learn about activation functions.

Resources - click here

DAY 13

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What to do

You learned about loss function, backpropagation and activation function. experiment with all these by building a model.

Resources - click here

DAY 14

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What to do

Learn about vanishing gradient problem.

Resources - click here

DAY 15

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What to do

Learn about Bias-Variance tradeoff

Resources - click here

DAY 16

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What to do

Learn about Dropout layer

Resources - click here

DAY 17

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What to do

Learn about how to initialize weights and different techniques

Resources - click here

DAY 18

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What to do

Learn about Batch normalization

Resources - click here

DAY 19

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What to do

Learn about RMSProp optimizer

Resources - click here

DAY 20

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What to do

Learn about Nesterov accelerated gradient

Resources - click here

DAY 21

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What to do

Learn about AdaGrad optimizer

Resources - click here

DAY 22

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What to do

Learn about Adadelta optimizer

Resources - click here

DAY 2 3

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What to do

Learn about Adam optimizer

Resources - click here

DAY 24

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What to do

Learn about Adam optimizer

Resources - click here

DAY 25

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What to do

Learn which optimizer to choose when??

Resources - click here

DAY 26

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What to do

Learn about gradient clipping

Resources - click here

DAY 27

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What to do

Learn about Softmax and cross-entropy for multi-class classification.

Resources - click here

DAY 28

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What to do

you learned a lot of theory...its time to do some hands-on...take any dataset and build deep NN and try different optimisers and see how it is performing

Resources - click here

DAY 29

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What to do

you learned a lot of theory...its time to do some hands-on...take any dataset and build deep NN and try different optimisers and see how it is performing

Resources - click here

DAY 30

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What to do

you learned a lot of theory...its time to do some hands-on...take any dataset and build deep NN and try different optimisers and see how it is performing

Resources - click here

DAY 31

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What to do

Learn about Autoencoders

Resources - click here

DAY 32

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What to do

Try to build a simple AutoEncoder using TensorFlow or Pytorch

Resources - click here

DAY 3 3

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What to do

Learn about word embeddings

Resources - click here

DAY 3 4

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What to do

Learn about word2vec embeddings and how to build them using CBOW and Skip-Gram.

Resources - click here

DAY 35

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What to do

Use any text data and generate word embeddings using word2vec (By using gensim)

Resources - click here

DAY 36

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What to do

Great you learned about basics of DL and word embeddings. It's time to do a project(sentiment analysis). Take any dataset and generate word embeddings and solve the problem.

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DAY 37

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What to do

Project #2 - Build your Own Neural Net from Scratch

Resources - click here

DAY 38

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What to do

Project #3 - Handwritten Digit Recognition System using MNIST dataset.

Resources - click here

DAY 39

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What to do

Project #4 - Image Classification with CIFAR-10 dataset. Build only Neural Networks not CNNs.

Resources - click here

DAY 40

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What to do

Project #5 - Predict Stock Prices using NN

Resources - click here

DAY 41

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What to do

Now it's time to tune the hyperparameters in your project and see how the model performance is changing

Resources - click here

DAY 4 2

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What to do

Also try to apply regularization techniques in your project and see how the performance is changing

Resources - click here

DAY 4 | 3

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What to do

Learn how human virtual cortex works

Resources - click here

DAY 4 4

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What to do

Learn about convolutional neural network and related terms and why CNN's. Also learn about convolutional layer.

Resources - click here

DAY 4 | 5

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What to do

Learn about kernels/filters and how different filters detects different things.

Resources - click here

DAY 4 | 6

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What to do

Learn about padding and strides. And learn how different padding and stride values affect the network.

Resources - click here

DAY 4 | 7

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What to do

Learn about max-polling layer and different types of it.

Resources - click here

DAY 4 8

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What to do

Learn how to train the CNN models on grey scale images. Try applying CNN's to project #3 and #4 and see how performace changes.

Resources - click here

DAY 49

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What to do

Do hyper parameter tuning of those projects with different kernel size, max pool layer, etc... Or apply these on new projects.

Resources - click here

DAY 50

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What to do

You learned how to apply CNN on grey scale images. Now try to do same things on RBG images.

Resources - click here

DAY 51

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What to do

You builded your own CNN netwroks. Now learn about different CNN architectures like Lenet and AlexNet.

Resources - click here

DAY 52

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What to do

Learn about VGGNet and different variations of it

Resources - click here

DAY 53

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What to do

Learn about residual network.

Resources - click here

DAY 54

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What to do

Learn about inception network.

Resources - click here

DAY 55

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What to do

Learn about transfer learning.

Resources - click here

DAY 5 6

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What to do

So you understood what is transfer learning. Now apply these architectures to your projects by directly applying it/ fine-tuning it. Or do new projects.

Resources - click here

DAY 57

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What to do

Project #6 Object Detection. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 58

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What to do

Project #6 Object Detection. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 59

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What to do

Project #7 Image Segmentation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 60

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What to do

Project #7 Image Segmentation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 61

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What to do

Project #8 Post estimation or Action recognition. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 6 | 2

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What to do

Project #8 Post estimation or Action recognition. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 63

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What to do

Project #9 Generate images/ Data augmentation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 64

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What to do

Project #9 Generate images/ Data augmentation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 6 5

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What to do

Learn about Recurrent neural networks and why RNN's.

Resources - click here

DAY 6 6

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What to do

Learn how RNN's are trained

Resources - click here

DAY 6 | 7

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What to do

Learn about different types of RNN's

Resources - click here

DAY 6 8

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What to do

Learn the limitations of RNN's

Resources - click here

DAY 69

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What to do

Learn about LSTM (Long short term memory)

Resources - click here

DAY 70

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What to do

Learn about GRU (Gated recurrent unit)

Resources - click here

DAY 71

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What to do

Learn about Deep RNNs and Bi-directional RNNs

Resources - click here

DAY 7 | 2

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What to do

Project #10 Text Summarizer. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 7 | 3

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What to do

Project #10 Text Summarizer. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 7 4

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What to do

Project #11 Language translation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 75

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What to do

Project #11 Language translation. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 7 6

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What to do

Project #12 Image Captioning. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 7 7

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What to do

Project #12 Image Captioning. You will learn more concepts by doing this project. Or your own ideas

Resources - click here

DAY 7 | 8

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What to do

Learn about Generative adversarial networks. And how GANs works.

Resources - click here

DAY 7 9

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What to do

Learn about Generative adversarial networks. And how GANs works.

Resources - click here

DAY 80

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What to do

Learn about Encoder - Decoder models.

Resources - click here

DAY 81

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What to do

Learn about Attention models - 1

Resources - click here

DAY 8|2

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What to do

Learn about Attention models - 2

Resources - click here

DAY 8 | 3

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What to do

Learn about Transformer model - 1

Resources - click here

DAY 8 4

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What to do

Learn about Transformer model - 2

Resources - click here

DAY 8|5

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What to do

Learn about BERT and related models - 1

Resources - click here

DAY 8 6

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What to do

Learn about BERT and related models - 2

Resources - click here

DAY 8 7

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What to do

Project #13 Question answering. You will learn more concepts by doing this project. Or your own ideas - 1

Resources - click here

DAY 8 8

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What to do

Project #13 Question answering. You will learn more concepts by doing this project. Or your own ideas - 2

Resources - click here

DAY 8 | 9

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What to do

Project #14 Generate Examples for Image Datasets using GANS. You will learn more concepts by doing this project. Or your own ideas - 1

Resources - click here

DAY 90

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What to do

Project #14 Generate Examples for Image Datasets using GANS. You will learn more concepts by doing this project. Or your own ideas - 2

Resources - click here

DAY 91

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What to do

Learn how to deploy your DL models using flask and Django - 1

Resources - click here

DAY 9 2

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What to do

Learn how to deploy your DL models using flask and Django - 2

Resources - click here

DAY 93

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What to do

Learn how to deploy your DL models on browser - 1

Resources - click here

DAY 94

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What to do

Learn how to deploy your DL models on browser - 2

Resources - click here

DAY 95

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What to do

Learn how to deploy your DL models on Android / IOS device - 1

Resources - click here

DAY 96

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What to do

Learn how to deploy your DL models on Android / IOS device - 2

Resources - click here

DAY 97

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What to do

Buffer day, if you are pending with anything complete that one - 1

Resources - click here

DAY 9 | 8

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What to do

Buffer day, if you are pending with anything complete that one - 2

Resources - click here

DAY 99

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What to do

Buffer day, if you are pending with anything complete that one - 3

Resources - click here

DAY 100

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What to do

Buffer day, if you are pending with anything complete that one - 4