CSCI4155 – ML Resources

Introduction to ML (Iris Dataset):

<https://github.com/rhiever/Data-Analysis-and-Machine-Learning-Projects/blob/master/example-data-science-notebook/Example%20Machine%20Learning%20Notebook.ipynb>

ML Algorithm Examples:

<https://ml-playground.com/>

Neural Network Examples:

[http://playground.tensorflow.org/](http://playground.tensorflow.org/#activation=relu&batchSize=14&dataset=spiral&regDataset=reg-plane&learningRate=0.1&regularizationRate=0.001&noise=20&networkShape=&seed=0.13859&showTestData=false&discretize=false&percTrainData=50&x=true&y=true&xTimesY=false&xSquared=false&ySquared=false&cosX=false&sinX=false&cosY=false&sinY=false&collectStats=false&problem=classification&initZero=false&hideText=false)

PyTorch Tutorial:

<https://pytorch.org/tutorials/beginner/deep_learning_60min_blitz.html>

Convolutional Neural Networks:

<https://towardsdatascience.com/a-comprehensive-guide-to-convolutional-neural-networks-the-eli5-way-3bd2b1164a53>

Video on Decision Trees:

<https://www.youtube.com/watch?v=-dCtJjlEEgM>

Video on Cross Entropy and Softmax:

<https://www.youtube.com/watch?v=PHP8beSz5o4>

Video on PCA:

<https://www.youtube.com/watch?v=FgakZw6K1QQ&feature=emb_logo>

Books on ML

\* Kevin Murphy, "Machine Learning: a Probabilistic Perspective"

\* David MacKay, "Information Theory, Inference, and Learning Algorithms"

\* Aston Zhang, Zachary Lipton, and Alexander Smola, "Dive into Deep Learning"

\* Chris Bishop, "Pattern Recognition and Machine Learning".