Neural Network

Convolutional network

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

You can write the Conv layer as "Conv2D (128, (3, 3), activation='relu'')" where you do not have to have a separate line for the activation

It was a headache but I finally installed tensorflow-gpu on my windows pc. now I can run the epoch in 20 seconds!

I kept getting a value error "can process an array or list of arrays" which was solved by turning the y variable into a numpy array. In case anyone else has this problem.

For reference on to 10 cancer states

<https://www.nbcnewyork.com/news/local/new-york-new-jersey-cancer-rates-cdc/321144/>

Model valuation

<https://www.coursera.org/lecture/ai-for-medical-diagnosis/ppv-npv-JgrUa>

<https://towardsdatascience.com/a-guide-to-an-efficient-way-to-build-neural-network-architectures-part-i-hyper-parameter-8129009f131b>

<https://towardsdatascience.com/a-guide-to-an-efficient-way-to-build-neural-network-architectures-part-ii-hyper-parameter-42efca01e5d7>

For write-up explanations

<https://www.datacamp.com/community/tutorials/convolutional-neural-networks-python>

<https://www.freecodecamp.org/news/how-to-build-your-first-neural-network-to-predict-house-prices-with-keras-f8db83049159/>

For codes

<https://matplotlib.org/3.1.1/api/_as_gen/matplotlib.pyplot.legend.html#matplotlib-pyplot-legend>

<https://www.codeproject.com/Articles/1244956/Basic-Deep-Learning-using-PythonplusKeras>

<https://machinelearningmastery.com/how-to-configure-the-number-of-layers-and-nodes-in-a-neural-network/>

<https://www.kaggle.com/kabak09/employee-attrition-predictive-model-with-rbf-svm>