Data Science: Deep Learning in Python Notes

**Section 1: What is a neural network**

Goal: Learn fundamentals of neural networks

Convolution NN

Recurrent NN

Deep Language Natural processing

What is Deep learning useful for?

useful for making predictions and is better than most

Strategy to learning: Learn by example

Uses case

enginner wanting to predict user actions

Outline

1. Softmax: binary classification to multi-class

how to discriminate between many different things

2. training NN using backpropogation

backpropogation is an extention of logistic regression

3. XOR and donut

4. numpy: build neural networks by hand

5. TensorFlow: plug-n-play script

6. TensorFlow playground: visualize what a NN is learning

7. facial expression recognition

How did we get here?

1. linear regression: statistics linear

2. logistic regression: logistic regression with machine learning part 0

3. this course: deep learning and python part 1