Homework 00 – Introduction

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0 Outline

1 Reading
2 Theory
3 Practice

1 Reading

1. Introduction

Motivation: get a big picture view of the course
https://github.com/arthurredfern/UT-Dallas-CS-6301-CNNs/blob/master/Lectures/xNNs_000_Introduction.pdf

Complete

2. A recipe for training neural networks

Motivation: remind (?) yourself that good software development practices also apply to writing code for designing and training xNNs
http://karpathy.github.io/2019/04/25/recipe/

Complete

2 Theory

None

3 Practice

3. For compute resources this class will use Google Colaboratory, a free cloud based Jupyter notebook environment provided by Google. Go through the cells in the following notebooks to familiarize yourself with this service:

- https://colab.research.google.com/notebooks/welcome.ipynb

- https://colab.research.google.com/notebooks/basic_features_overview.ipynb

If you'd like a slightly improved experience (faster GPUs, longer session times, more memory) Google offers a Colab Pro version for $9.99 / month (https://colab.research.google.com/signup). However, this is not required for the course.

Complete

4. For a high level language, this class will use Python and the NumPy and Matplotlib packages. If you are not already familiar with these, study the following tutorial:

- http://cs231n.github.io/python-numpy-tutorial/

Complete

If you would like more information on any of these, the following are some pointers to additional references:

- Python: https://developers.google.com/edu/python/
- Python: https://docs.python.org/3/tutorial/
- NumPy: https://docs.scipy.org/doc/numpy/user/quickstart.html
- Matplotlib: https://matplotlib.org/users/pyplot_tutorial.html

Complete

Submitted by- Kapil Gautam