Deep Learning Summer Workshop 2018

Organizing Committee:
Stanley Chan
Charles Bouman
Amir Ziabari
Xiangyu Qu
Diyu Yang
Agenda

Wed 6/20: 1-5pm, EE 170
Session 1. (1pm - 3pm)
Instructor: Xiangyu Qu (PhD year 1, Chan Lab)

Session 2. (3pm - 5pm)
Instructor: Diyu Yang (PhD year 1, El Gamal Lab)

Wed 6/21: 1-5pm, EE 170
Session 3. (1pm - 3pm)
Conv NN 1. Build your first CNN with tensor flow on MNIST dataset.
Instructor: Dr. Amir Ziabari (Postdoc, Bouman Lab)

Session 4. (1pm - 3pm)
Conv NN 2. Adding nonlinear components to NN.
Instructor: Dr. Amir Ziabari (Postdoc, Bouman Lab)
Using Rice Server

https://desktop.rice.rcac.purdue.edu:300/main/

Login with your Purdue Account
Start Terminal
Get a Node

$qsub -I -l nodes=1:ppn=20 -l walltime=04:00:00 -q chan129
Open a file to write

$ module load tensorflow
$ pip install matplotlib --user

Create a new file, say temp.py
Open it
Hello World

```python
import tensorflow as tf
a = tf.constant(5.0, tf.float32)
b = tf.constant(5.0)
c = a + b
with tf.Session() as sess:
    print(sess.run(c))
    sess.close()
```

$ python3 temp.py

```
File "temp.py", line 6, in <module>
    print(sess.run())
TypeError: run() missing 1 required positional argument: 'etches'
```

```
TensorFlow library wasn't compiled to use FMA instructions, but these are available on your machine and could speed up CPU computations.
Traceback (most recent call last):
  File 'temp.py', line 6, in <module>
    print(sess.run())
TypeError: run() missing 1 required positional argument: 'etches'
```
Using Your Own Laptop

https://anaconda.org/
Install TensorFlow
Create Environment
Install Packages

You need:
- tensorflow – cpu
- numpy
- scipy
- matplotlib
- Spyder
- … and other things you like
Launch Spyder
Hello World