

# Homework 01 – Introduction

Arthur J. Redfern  
[arthur.redfern@utdallas.edu](mailto:arthur.redfern@utdallas.edu)  
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## 0 Outline

- 1 Logistics
- 2 Reading
- 3 Theory
- 4 Practice

## 1 Logistics

Assigned: Mon Jan 14, 2019  
Due: Wed Jan 23, 2019  
Format: PDF uploaded to eLearning with the following format

Homework 01 – Introduction

FirstName LastName  
NetID

As a Comet, I pledge honesty, integrity, and service in all that I do

1. Complete or Incomplete
2. Complete or Incomplete
- ...
7. Complete or incomplete

## 2 Reading

None

## 3 Theory

None

## 4 Practice

1. If you are not familiar with Python and it's commonly used libraries read the following tutorial

Web site: <http://cs231n.github.io/python-numpy-tutorial/>

2. Install TensorFlow and associated dependencies on your local machine

Web site: <https://www.tensorflow.org/install/>

Options: Via package (pip or Docker) or build from source; recommended to include GPU support if you have a Nvidia GPU with CUDA compute capability 3.5 or higher (don't worry about this if you don't)

3. Read the following sections in the TensorFlow guide

Web site: <https://www.tensorflow.org/guide/>

Sections: High level APIs  
Estimators  
Low level APIs  
TensorBoard  
Performance

4. Run the following tutorials on TensorFlow on your local machine

Web site: <https://www.tensorflow.org/tutorials/>

Tutorials: 1. Basic classification  
5. Save and load

5. Browse through the features of Google's Colaboratory

Web site: <https://colab.research.google.com/notebooks/welcome.ipynb>

6. Browse through the examples (seeds) on Google's SeedBank

Web site: <https://research.google.com/seedbank/>

Features: Browse Seeds  
Tutorial  
FAQ

7. Run the Fashion MNIST with tf.keras example on Google's Colaboratory

Web site: <https://research.google.com/seedbank/seed/5648554290839552>  
[https://colab.research.google.com/github/tensorflow/docs/blob/master/site/en/tutorials/keras/basic\\_classification.ipynb](https://colab.research.google.com/github/tensorflow/docs/blob/master/site/en/tutorials/keras/basic_classification.ipynb)