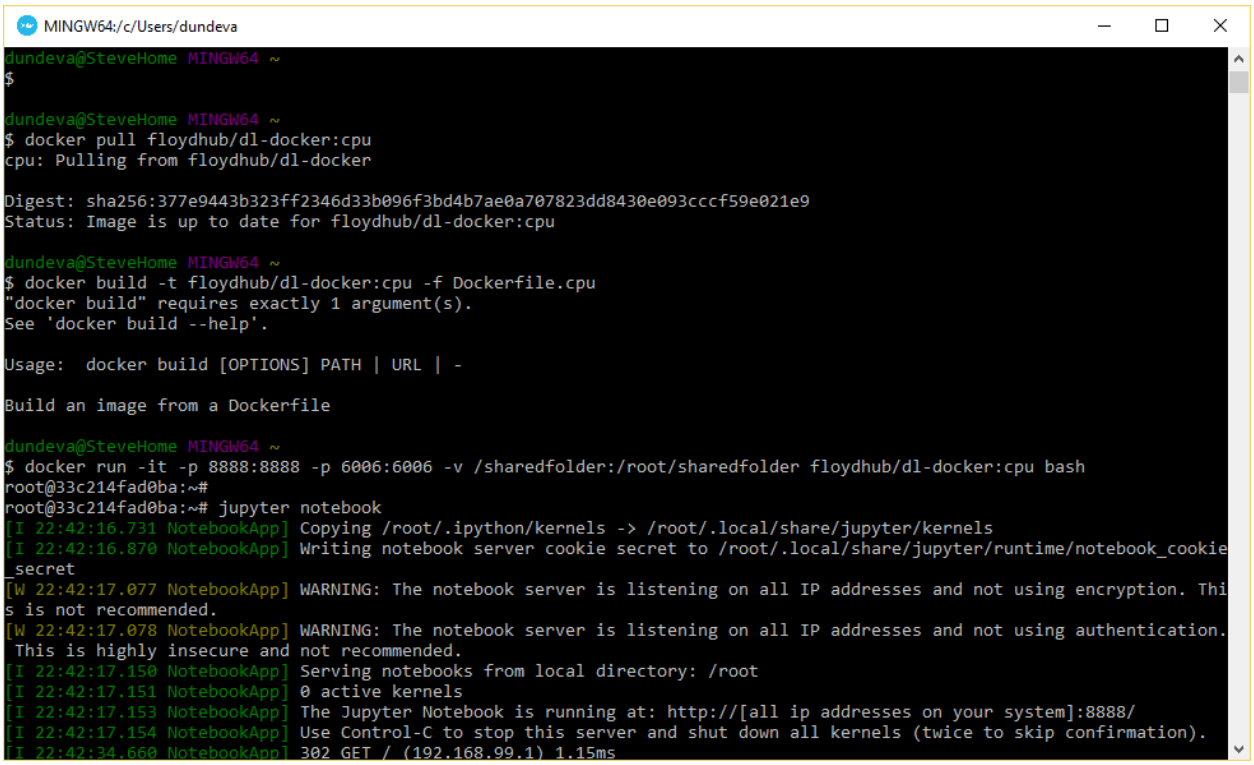
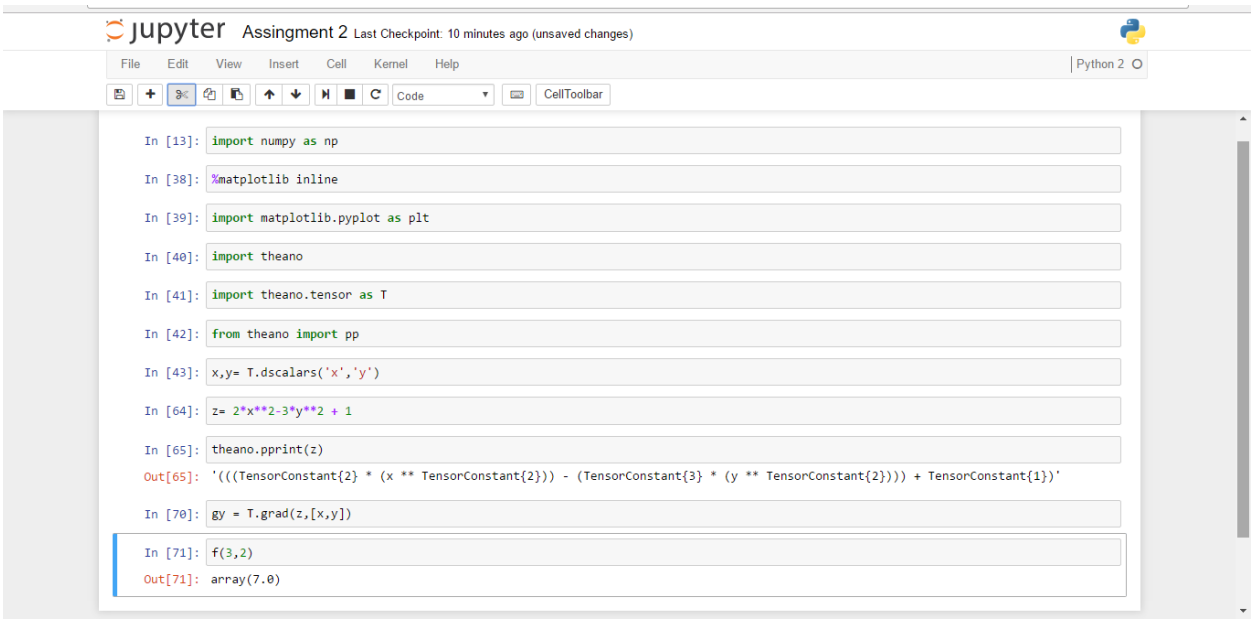
Prof. Professor Brian Rowe
DATA 622: Machine Learning and Big Data
Department of Data Analytics, City University of New York

Week 2 Assignment

Docker Session



Compute the gradient [2] of z = 2x^2 - 3y^2 + 1 at the point (3,2).


jupyter Assingment 2 Last Checkpoint: 10 minutes ago (unsaved changes)
File Edit View Insert Cell Kernel Help
Python 2
Code
CellToolbar
In [13]: import numpy as np
In [38]: %matplotlib inline
In [39]: import matplotlib.pyplot as plt
In [40]: import theano
In [41]: import theano.tensor as T
In [42]: from theano import pp
In [43]: x,y= T.dscalars('x','y')
In [64]: z= 2*x**2-3*y**2 + 1
In [65]: theano.pprint(z)
Out[65]: '(((TensorConstant{2} * (x ** TensorConstant{2})) - (TensorConstant{3} * (y ** TensorConstant{2}))) + TensorConstant{1})'
In [70]: gy = T.grad(z,[x,y])
In [71]: f(3,2)
Out[71]: array(7.0)