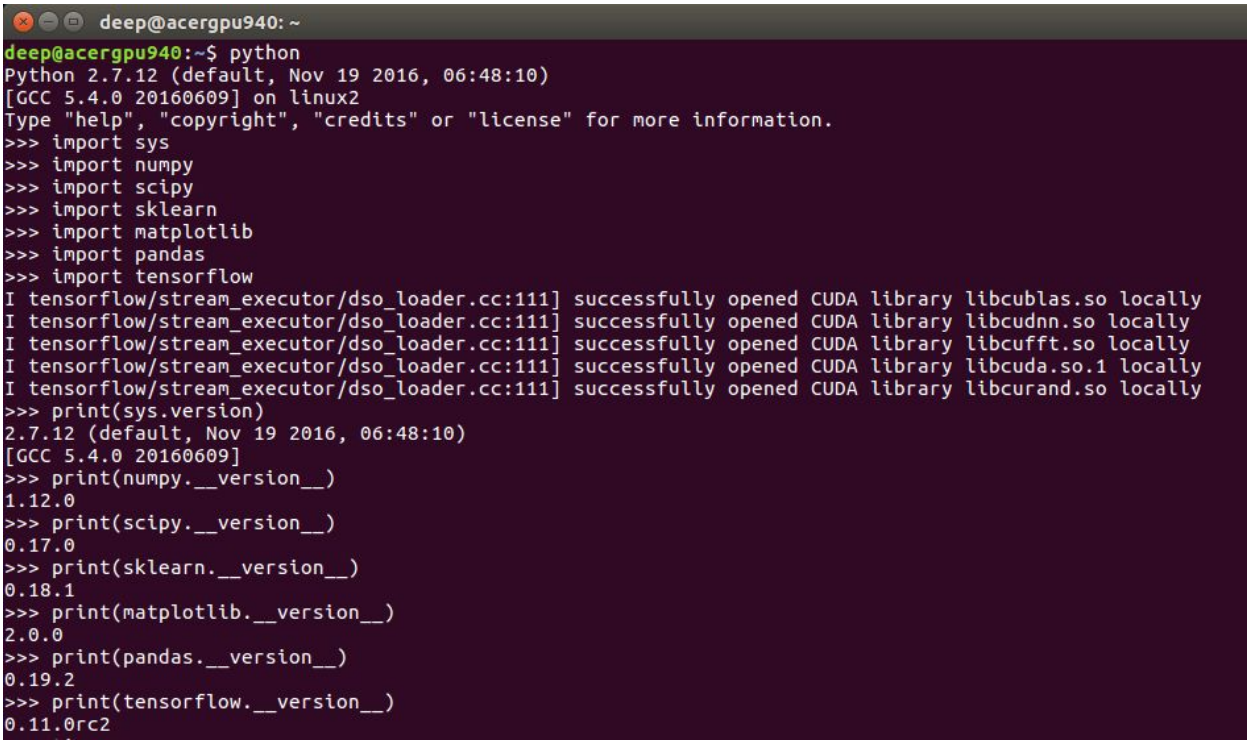
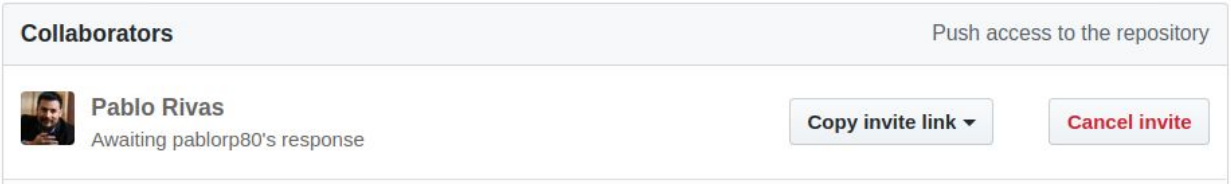
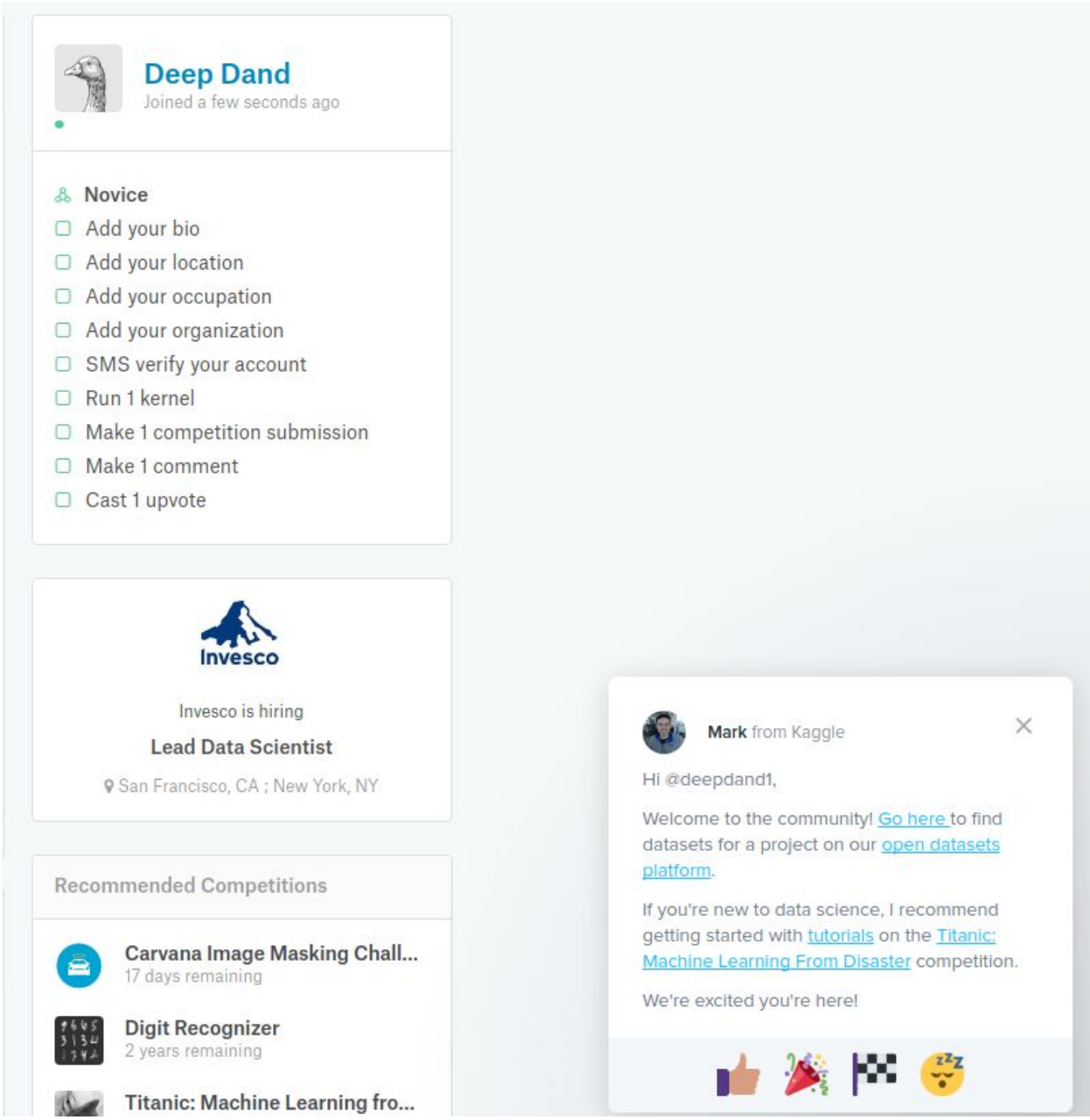
1. Single repo name - Dand-00
2.
    a. Installation Proof



    b. Github class repo - DeepLearningF17.



c. Kaggle account - deepdand1



3. **Problem 4.3**

Answer a. - The multiplication is not possible since the dimensions doesn't meet matrix multiplication criteria. The criteria states that the number of columns of first matrix should be equal to number of rows of second matrix.

```
>>> import numpy as np
>>> import tensorflow as tf
>>> a = [[1,4,-3],[2,-1,3]]
```

```
>>> b = [[-2,0,5],[0,1,4]]
>>> np.matmul(a,b)
ValueError: shapes (2,3) and (2,3) not aligned: 3 (dim 1) != 2 (dim 0)
       ^
```

Answer b.

```
>>> import numpy as np
>>> import tensorflow as tf
>>> a = [[1,4,-3],[2,-1,3]]
>>> b = [[-2,0,5],[0,1,4]]
>>> at = np.transpose(a)
>>> at
 array([[ 1,  2],
       [ 4, -1],
       [-3,  3]])
>>> result = np.matmul(at,b)
>>> result
>>> array([[-2,  2, 13],
       [-8, -1, 16],
       [ 6,  3, -3]])
>>> rank = np.ndim(result)
>>> rank
2
```

Answer c.

```
>>> a = [[1,4,-3],[2,-1,3]]
>>> b = [[-2,0,5],[0,1,4]]
>>> c =[[1,0],[0,2]]
>>> bt = np.transpose(b)
>>> ci = np.linalg.inv(c)
>>> result = np.add(np.matmul(a,bt),ci)
>>> result
array([[-16. ,  -8. ],
       [ 11. ,  11.5]])
```