Tutorial: Run Scripts on Penn's server, but display Spyder on your own computer!

This Spyder instance actually runs a biglab.seas.upenn.edu. It is "tunneled" to my Macbook, so that I can utilize the computational power of BigLab, the friendly IDE of Spyder, while working away from home in my pajamas on this 37°F cold day!

1. If you are on a Mac, **download and install XQuartz**, which enables your Mac to accept remote windows. For other Operating Systems, please see [this](#).

2. **Add the following lines** to the `~/.zshrc`:

```bash
# This line enables you to type "biglab" and connect to biglab.seas.upenn.edu directly:
alias biglab="ssh -tY <pennkey>@biglab.seas.upenn.edu 'screen -S foo -rd || screen -S foo zsh'"

# This script allows iTerm to accept X11 windows from remote servers.
DISPLAY=""
```


3. **Start XQuartz**, and set it aside. This will be our "client program" accepting windows running on UPenn's servers.
3. **Start XQuartz**, and set it aside. This will be our "client program" accepting windows running on UPenn's servers.

4. Open a terminal, and **connect to biglab.seas.upenn.edu** by typing `biglab`.

5. When connected, **install Anaconda**:

   ```bash
   wget https://repo.continuum.io/archive/Anaconda2-5.0.1-Linux-x86_64.sh
   bash Anaconda2-5.0.1-Linux-x86_64.sh
   ```

6. When finished, you can **set up virtual environments** by following instructions from Homework 4, Part II, 2.3.

7. With a virtual environment activated or not, you can **start Spyder** now: `spyder`. After a while, you can see a Spyder instance showing up on your desktop. Keep in mind that this is actually running on biglab!

## Known Bugs

1. Tensorflow will always throw an error upon finishing, due to its "uniqie" way of quitting a program.

2. Button symbols are replaced by weird Korean characters, generating lots of **Failed to compute left/right minimum bearings for "FontAwesome"** error from the terminal.

Neither of these bugs affect the proper execution of our programs, so I'd let them go for now.