Canthink Script Generation for HTTP Request

Server Setting

Ubuntu

Install screen and ssh for remote control and background monitoring.

```
sudo apt-get install htop screen ssh
```

More modern versions of Ubuntu you could just install `pip` via, it works on my Ubuntu 16.04:

```
sudo apt-get install python-dev python-virtualenv python-pip python3-pip
```

CentOS

Coming soon.

MacOS

Coming soon.

TensorFlow Setting

Information

You can find installing information for Linux system on official website of TensorFlow.

Nvidia Support(optional)

NVIDIA requirements to run TensorFlow with GPU support

```
sudo apt-get install libcupti-dev
```

Install the nvidia drivers for Ubuntu (for 14.04 and newer), firstly add the graphics-drivers ppa:

```
sudo add-apt-repository ppa:graphics-drivers/ppa sudo apt-get update
```

Then install the recommended driver

```
sudo ubuntu-drivers autoinstall
```

Then restart your system.

Install CUDA 8, you can also find information on Nvidia-CUDA website.

Downloading script:

```
wget
```

`http://developer.download.nvidia.com/compute/cuda/repos/ubuntu1604/x86_64/cuda-repo-ubuntu1604_8.0.61-1_amd64.deb`

Installation Instructions:

`sudo dpkg -i cuda-repo-ubuntu1604_8.0.61-1_amd64.deb`

`sudo apt-get update`

`sudo apt-get install cuda`

Install TensorFlow

`pip install --upgrade tensorflow` # for Python 2.7

`pip3 install --upgrade tensorflow` # for Python 3.n

`pip install --upgrade tensorflow-gpu` # for Python 2.7 and GPU

`pip3 install --upgrade tensorflow-gpu` # for Python 3.n and GPU

Install Server and Client Monitor

Installing Jupyter Notebook

As an existing Python user, you may wish to install Jupyter using Python's package manager, pip, instead of Anaconda.

First, ensure that you have the latest pip; older versions may have trouble with some dependencies:

```
pip3 install --upgrade pip
```

Then install the Jupyter Notebook using:

```
pip3 install jupyter
```

Remote Access to IPython Notebooks via SSH

Here I took a reference on blog in Coderwall

Scenario: On your local computer, you want to open and manipulate an IPython notebook running on a remote computer. We will do this by opening an SSH tunnel. This tunnel will forward the port used by the remotely running IPython instance to a port on the local machine, where it can be accessed in a browser just like a locally running IPython instance.

On the remote machine, start the IPython notebooks server:

```
remote_user@remote_host$ ipython notebook --no-browser --port=8889
```

Usually IPython opens a browser to display the available notebooks, but we do not need that so we use the option --no-browser. We also change the port to 8889, for no other reason than to show how this is done.

On the local machine, start an SSH tunnel:

```
local_user@local_host$ ssh -N -f -L localhost:8888:localhost:8889 remote_user@remote_host
```

The first option -N tells SSH that no remote commands will be executed, and is useful for port forwarding. The second option -f has the effect that SSH will go to background, so the local tunnel-enabling terminal remains usable. The last option -L lists the port forwarding configuration (remote port 8889 to local port 8888).

Now open your browser on the local machine and type in the address bar

```
localhost:8888
```

which displays your remotely running IPython notebook server. To close the SSH tunnel on the local machine, look for the process and kill it manually:

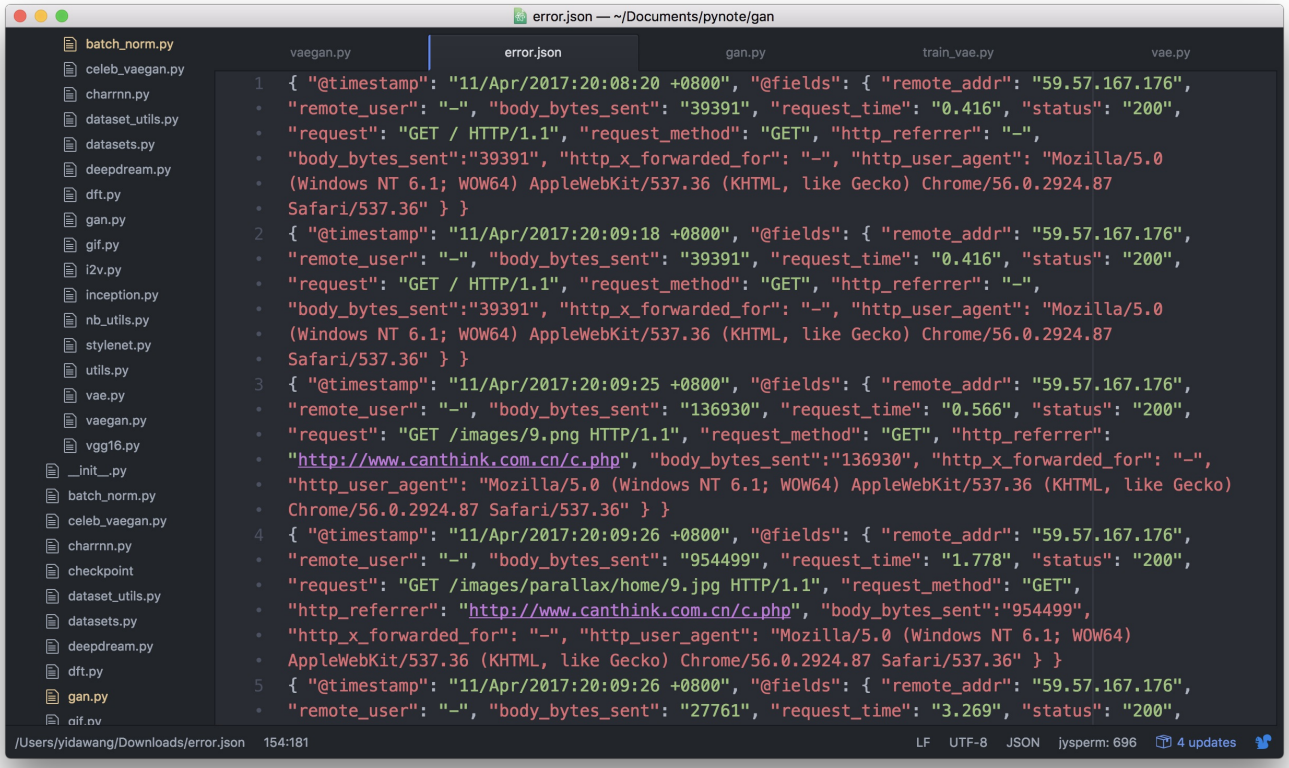
```
local_user@local_host$ ps aux | grep localhost:8889
```

Alternatively, you can start the tunnel without the -f option. The process will then remain in the foreground and can be killed with ctrl-c.

On the remote machine, kill the IPython server with ctrl-c ctrl-c.

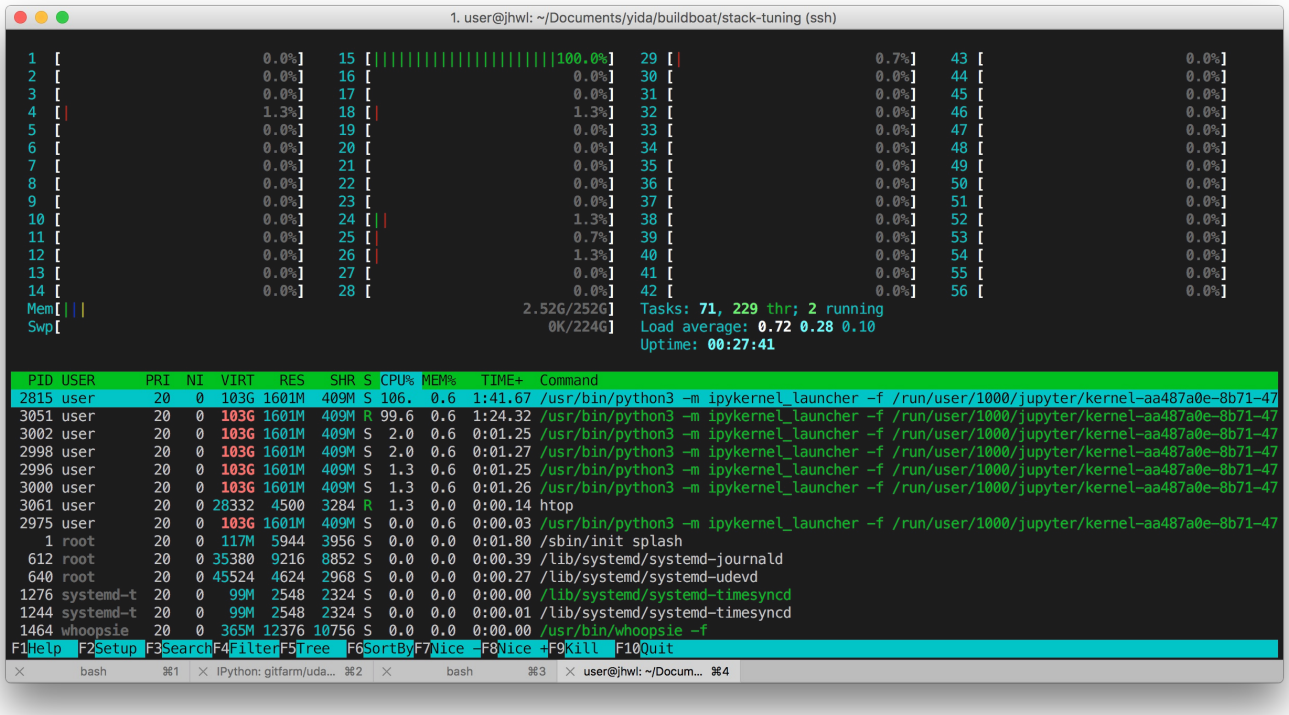
Platform Information

Training Data

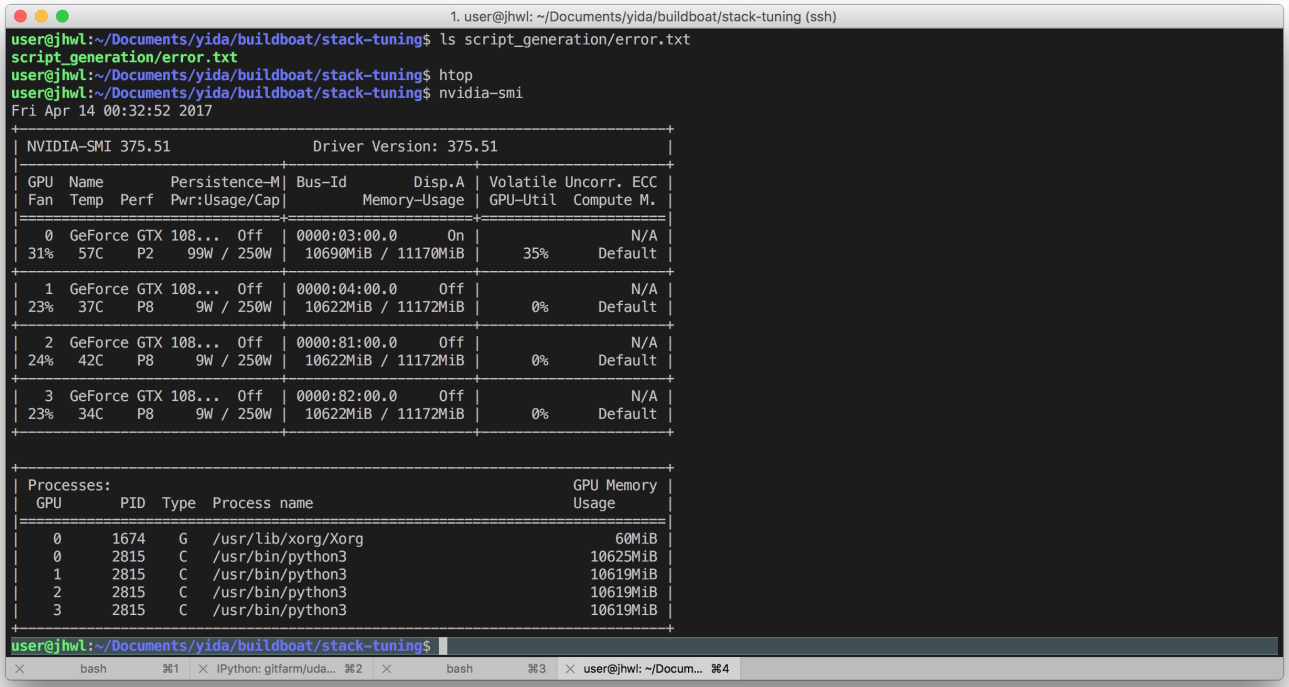


Server Status

Server Status of CPU

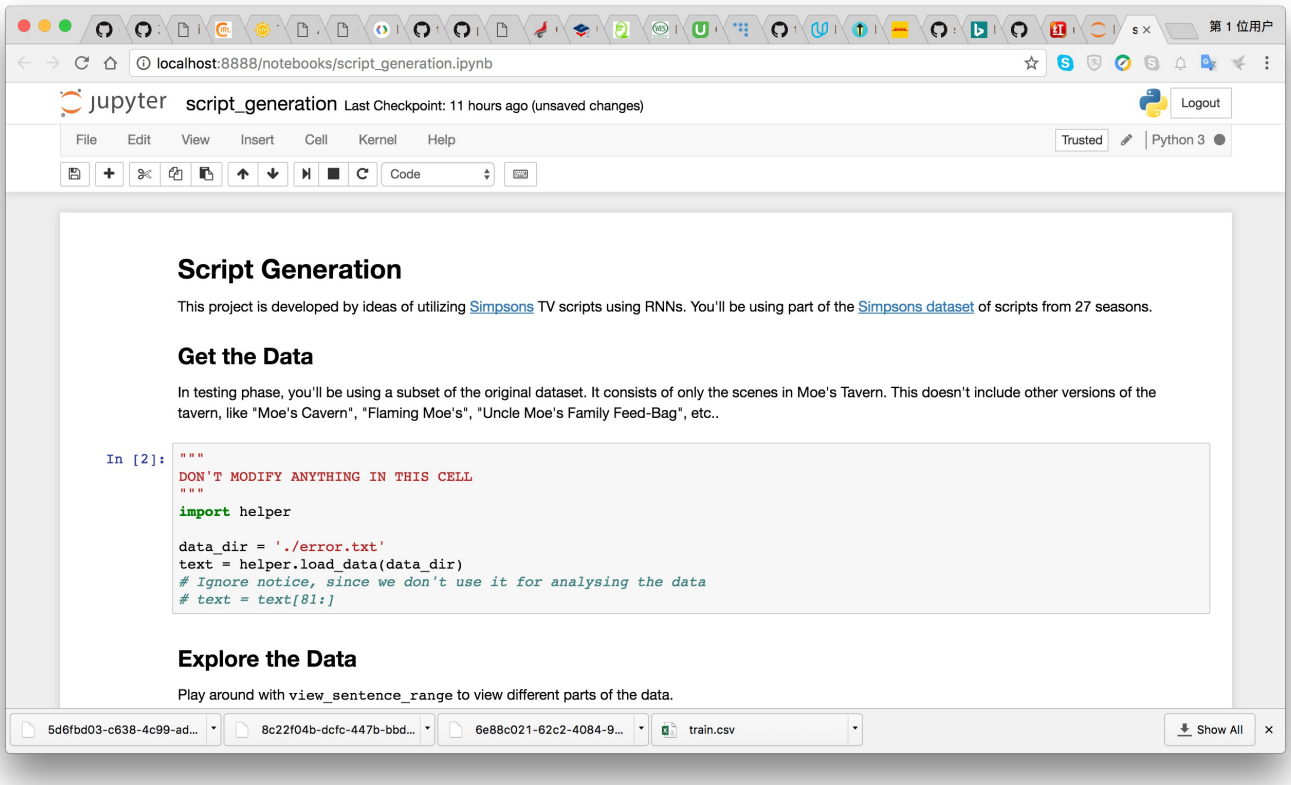


Server Status of GPU

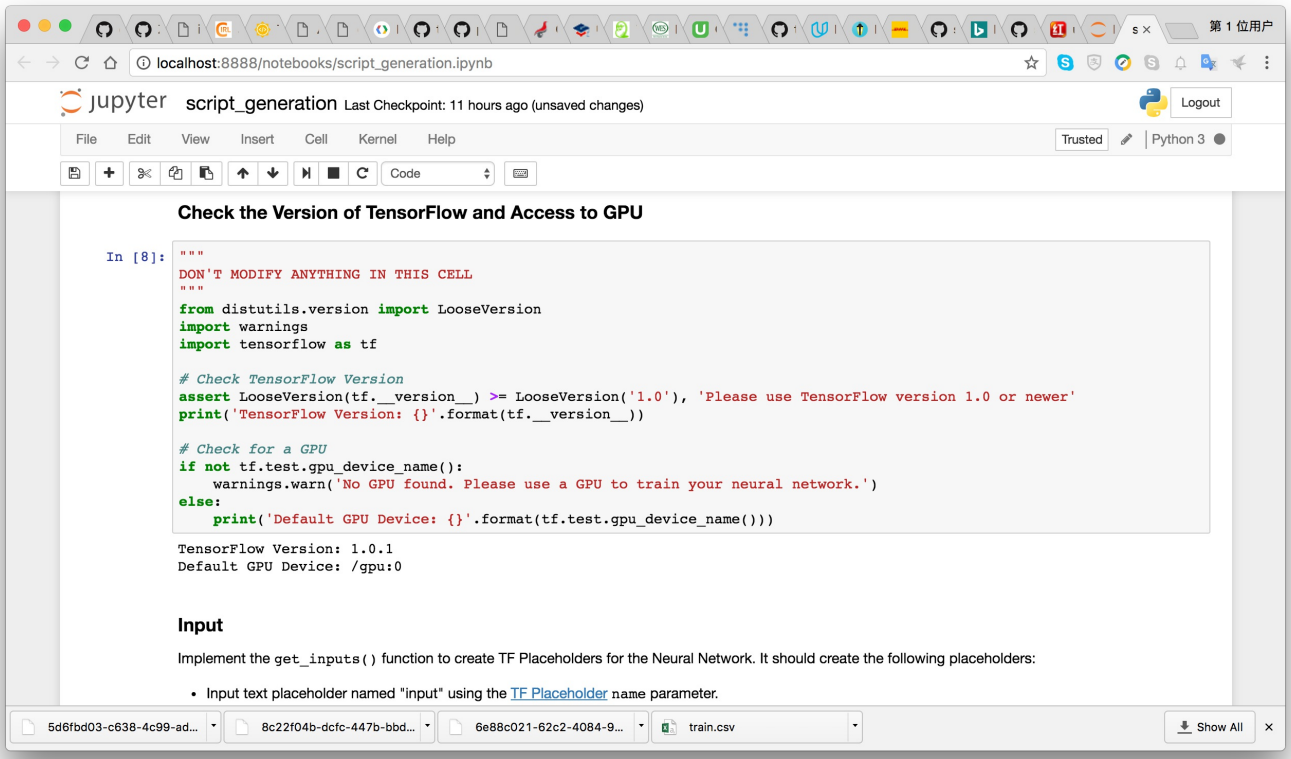


Client

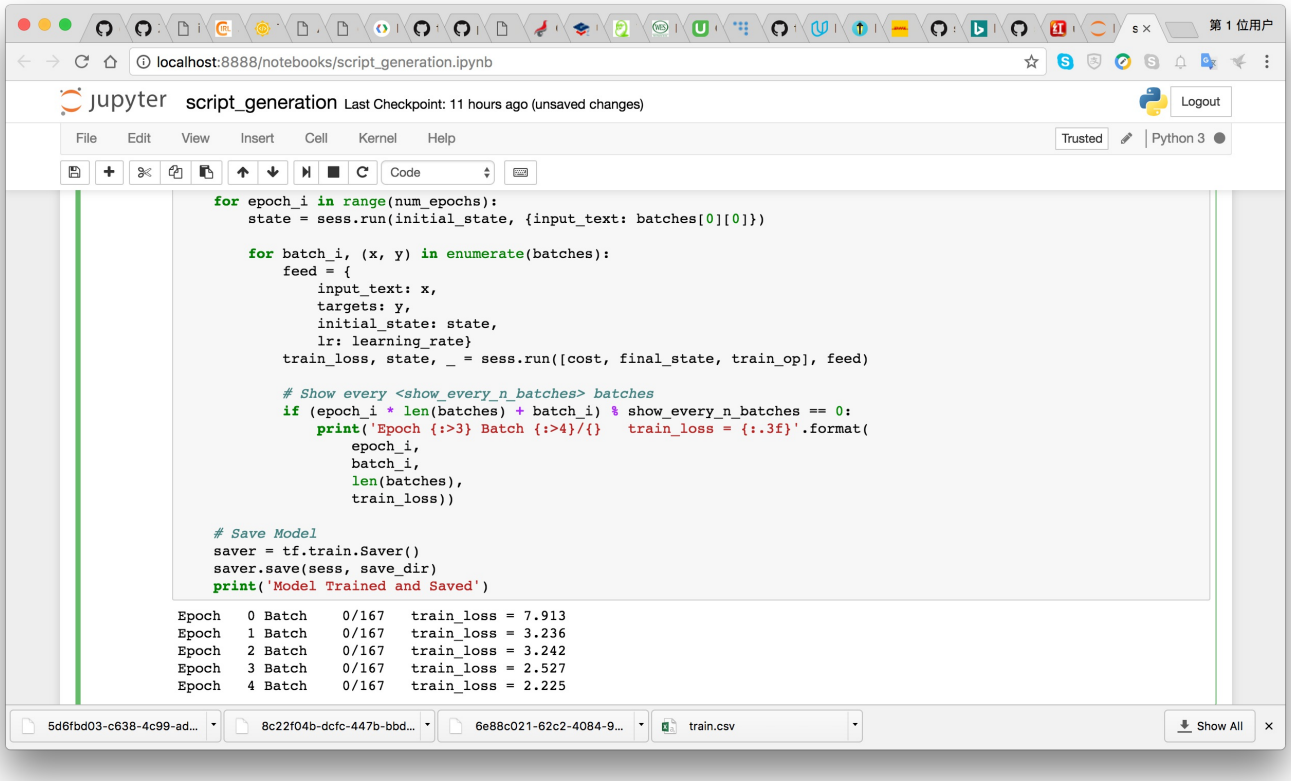
Input Definition



GPU Information of Server



Training Progress



Result