MIT 6.S094: Deep Learning for Self-Driving Cars

Setting Up Docker and TensorFlow for Linux

Installing Docker

- Follow the instruction here for your distro
- Open terminal and run the docker hello-world image

```
docker run hello-world
```

Installing TensorFlow

- Open a terminal
- Pull the tensorflow docker image:

```
docker pull tensorflow/tensorflow
```

- Test running the Docker TensorFlow image:

```
docker run -it -p 8888:8888 tensorflow/tensorflow
```

- Copy the URL with your login Jupyter login token from the terminal and go to it in your web browser

If you were able to access the page, Docker and TensorFlow have been installed correctly.

Getting the TensorFlow Tutorials

Note: For this tutorial, we are cloning the deepcars repo to our home directory, you can put it anywhere you like, but the rest of the tutorial will assume it is located at:

```
~/deepcars-master
```

- Clone the github repo https://github.com/lexfridman/deepcars
- Open a terminal
- Run the TensorFlow docker image and mount the notebooks.

```
docker run -it -p 8888:8888 -p 6006:6006 -v ~/deepcars-master:/notebooks tensorflo
```

- In your browser, navigate to URL provided by Docker inside of your terminal
- Ensure that the notebooks for the tutorials are available (you should see '1_python_perceptron.ipynb'

as the first notebook).

Congratulations! If you were able to access the deepcars Notebooks from within your browser, everything should be working!

Note: We recommend adding the command to run the Docker image and mount the notebooks to a script for easy execution. Simply open a your favorite text editor and paste in the lines

```
#!/bin/bash
docker run -it -p 8888:8888 -p 6006:6006 -v ~/deepcars-master:/notebooks tensorflow/ten
```

Save the script as ‘start-tensorflow.sh’ and run

```
chmod +x start-tensorflow.sh
```

Then run the script

```
./start-tensorflow.sh
```