Install Tensorflow-gpu

1. Miniconda

Download and install Miniconda

```
bash Miniconda3-latest-Linux-x86_64.sh
```

2. Create Environment

```
conda create -n tf_env python=3.7
conda activate tf_env
```

4. Install Tensorflow-gpu

```
conda install -c conda-forge tensorflow-gpu==1.14
```

5. Check Versions

Make shure cudatoolkit, cudnn and nvidia driver fit together as shown in the Cuda Support Matrix.

```
conda list | grep cud # for cuda/cudnn versions
nvidia-smi # vor driver versin
```

If not either up/downgrade nvidia driver or cuda.

6. Install Packages

```
conda install -c conda-forge keras
conda install -c conda-forge matplotlib
```

Install Tensorflow Object Detection Api

1. Tensorflow Models

Clone the tensorflow Models Repository which contains the Object Detectin Api:

```
git clone https://github.com/tensorflow/models.git
```

2. Protobuf

- Download Python Version of Protbuf
- install Protobuf:

```
sudo ./configure
sudo make check
sudo make install
sudo ldconfig
cd models/research
protoc object_detection/protos/*.proto –python_out=.
```

- Environment Variablen im .bashrc hinzufügen:

```
export
PYTHONPATH=$PYTHONPATH:/path/to/TensorFlow/models/research:/path/to/TensorF
low/models/research/slim:/path/to/TensorFlow/models/research/object_detecti
on
```

in letzte Zeile schreiben.

3. Tensorboard