

# Setting up your Deep Learning Lab (easy mode)

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All comments and suggestions for improvement are warmly welcome.

## Foreword

Setting up a “deep learning lab” may be quite a pain. This guide tries to make installation as simple as possible.

We’ll be using Anaconda Distribution, which is a free, easy-to-install package manager, environment manager and Python distribution. Anaconda is platform-agnostic, so you can use it whether you are on Windows, macOS or Linux.

In what follows I’m mostly just telling what to do and not so much why to do.

## 1. Install Anaconda

Just download the latest release (likely Python 3.7). Once installed you can create new environments that include any version of Python packaged with conda, should the need arise.

## 2. Install tensorflow

Note: if you don’t have an NVIDIA GPU, just replace `tensorflow-gpu` with plain `tensorflow` below.

Go first to Anaconda Prompt (it’s much like Windows command prompt), create a new environment and give it a name. Since the current tensorflow supports Python version 3.6, we tell conda to install that version in the new environment.

```
conda create --name tf_gpu python=3.6
```

Next, activate your newly-created environment:

```
activate tf_gpu
```

You should now see `(tf_gpu)` on the left of your command prompt.

Install tensorflow:

```
conda install tensorflow-gpu
```

This will install among other things the necessary NVIDIA libraries.

### 3. Re-install jupyter

We must reinstall a couple of packages in our new environment to make notebooks to find our new libraries.

```
conda install ipykernel
conda install jupyter
```

### 4. Start jupyter

Go to working directory of your choice (the one where your notebooks are or some superdirectory of that; if you're unsure just go to the root directory).

```
jupyter notebook
```

**5. Test tensorflow installation.** Note: you can do this from python command prompt, too.

Create new notebook and type the following in the code cell.

```
import tensorflow as tf
sess = tf.Session(config=tf.ConfigProto(log_device_placement=True))
```

Press then ctrl-enter or the Run -button and see that neither the notebook nor the console window (where you started) reports of errors.

### 6. Install keras

Note that a version of `keras` comes nowadays packaged with `tensorflow`. So, in principle you could just use that.

```
conda install keras
```