

## Installing python and tensorflow

1. Go to <https://www.anaconda.com/products/individual> and install the latest version of anaconda. If anaconda is already installed, you can skip this step.
  - a. Tensorflow can be installed without anaconda, but the installation is a lot more complicated (especially if using the gpu) and will not be covered in this document. Antonio highly recommends using anaconda, but if you want to install it the old-fashioned way, you can find instructions online
2. After the installation open the Anaconda Prompt. It should look like this:



3. If your computer has a NVIDIA video card, type into the prompt:
  - a. `conda create --name tf_gpu tensorflow-gpu seaborn pandas`
4. If your computer does **NOT** have an NVIDIA video card, type:
  - a. `conda create --name tf_cpu tensorflow seaborn pandas`
5. Type y when asked

```
pkgs/main/win-64::pyjwt-1.7.1-py37_0
pkgs/main/noarch::pyopenssl-19.1.0-py_1
pkgs/main/win-64::pyreadline-2.1-py37_1
pkgs/main/win-64::pysocks-1.7.1-py37_1
pkgs/main/win-64::python-3.7.7-h81c818b_4
pkgs/main/noarch::requests-2.24.0-py_0
pkgs/main/noarch::requests-oauthlib-1.3.0-py_0
pkgs/main/noarch::rsa-4.0-py_0
pkgs/main/win-64::scipy-1.5.0-py37h9439919_0
pkgs/main/win-64::setuptools-49.2.0-py37_0
pkgs/main/noarch::six-1.15.0-py_0
pkgs/main/win-64::sqlite-3.32.3-h2a8f88b_0
pkgs/main/noarch::tensorboard-2.2.1-pyh532a8cf_0
pkgs/main/noarch::tensorboard-plugin-wit-1.6.0-py_0
pkgs/main/win-64::tensorflow-2.1.0-eigen_py37hd727fc0_0
pkgs/main/win-64::tensorflow-base-2.1.0-eigen_py37h49b2757_0
pkgs/main/noarch::tensorflow-estimator-2.1.0-pyhd54b08b_0
pkgs/main/win-64::termcolor-1.1.0-py37_1
pkgs/main/noarch::urllib3-1.25.9-py_0
pkgs/main/win-64::vc-14.1-h0510ff6_4
pkgs/main/win-64::vs2015_runtime-14.16.27012-hf0eaf9b_3
pkgs/main/noarch::werkzeug-0.16.1-py_0
pkgs/main/win-64::wheel-0.34.2-py37_0
pkgs/main/win-64::win_inet_pton-1.1.0-py37_0
pkgs/main/win-64::wincertstore-0.2-py37_0
pkgs/main/win-64::wrapt-1.12.1-py37he774522_1
pkgs/main/win-64::zlib-1.2.11-h62dc97_4

Proceed ([y]/n)?
```

6. Type:
  - a. If video card: `conda activate tf_gpu`
  - b. If no video card: `conda activate tf_cpu`
7. To test installation type:
  - a. `Python`
  - b. In the python console type:

```
import tensorflow as tf
tf.reduce_sum(tf.range(1000))
```

The following should be printed in the console:

```
<tf.Tensor: shape=(), dtype=int32, numpy=499500>
```

If the code runs without error, tensorflow is installed correctly. If errors are shown, repeat steps 3-7.