**TDS3651 Visual Information Processing**

**Installation instruction for Python Environment**

For those who intend to use your own machines to work offline in this course, you can use Anaconda platform with Python 3.11 for the practical exercises. Please follow the instructions below to install and set up Anaconda on your PC/Laptop.

1. Download and Install Anaconda (<https://www.anaconda.com/products/individual>).

Select the version with Python 3.11, 64-Bit Graphical Installer.

1. Launch Anaconda prompt and at the command prompt:
2. Setup an environment by giving a name, for example ‘keras’ (can be any other names):

* *conda create --name keras*
* *conda list -n keras*
* *activate keras*

1. Install the following packages:

* *conda install pip*
* *pip install numpy*
* *pip install scipy*
* *pip install pandas*
* *pip install seaborn*
* *pip install Pillow*
* *pip install scikit-learn* 
  + *for upgrade: pip install -U scikit-learn*
* *pip install scikit-image*
* *pip install opencv-python*
* *pip install opencv-contrib-python*
* *pip install tensorflow*
* *pip install keras*
* *pip install spyder* 
  + *current spyder version may have error, solution: conda install pywin32*
* *pip install jupyter (for jupyter notebook)*

1. To launch Jupyter Notebook:

* *navigate to the dir you store your program, eg: cd \deeplearn\MLDL*
* *activate keras (keras is the environment name)*
* *jupyter notebook*