Tutorial

Matlab Kernel for Jupyter Notebooks

Source: http://jupyter.org/
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1. Quickstart

Install as per instructions below:

- Launch anaconda prompt (Windows) or Terminal (linux/mac). In Terminal/ Prompt:
  - *activate conda environment* (Windows: `activate ml_jp` Linux/Mac: `source activate ml_jp`)
  - *start jupyter notebook by typing jupyter notebook*

- Internet Browser with Jupyter Notebook Home should open
  - If you are unfamiliar with Jupyter Notebooks, *read some guides*
  - Create a new notebook using Matlab Kernel and start writing scripts

2. Installation

2.1 Set up an anaconda installation

(Lending from: [https://medium.com/@rabernat/32d58c63aa95](https://medium.com/@rabernat/32d58c63aa95) and [https://walczak.org/2017/07/using-matlab-in-jupyter-notebooks-on-windows/](https://walczak.org/2017/07/using-matlab-in-jupyter-notebooks-on-windows/))

2.2 Install Miniconda3

On (64 bit) Unix:
Get the latest Miniconda3 installer from [https://conda.io/miniconda](https://conda.io/miniconda) and install it:

```
wget https://repo.continuum.io/miniconda/Miniconda3-latest-Linux-x86_64.sh -O miniconda3.sh
bash miniconda3.sh -b -p $HOME/miniconda export PATH="$HOME/miniconda/bin:$PATH"
```

On Windows download installer and run it.

2.3 Install the environment

Create a new python3.5 conda environment. The python version is important, since the python-matlab bridge (package pymatbridge) is only available for python 2.7, 2.4 and 3.5.

On windows, use the conda shell that came with your miniconda/ anaconda installation. On linux/ mac just the terminal (e.g. item).

```
conda create -n ml_jp python=3.5
source activate ml_jp
```

The commands above create a new python 3.5 environment called ml_jp and then activates it.

Please make sure that the environment is activated for the following steps.
On linux mac:
source activate ml_jp

On windows:
activate ml_jp

Next, install the necessary libraries: jupyter for jupyter notebooks, metakernel a tool for jupyter/ipython kernels, pymatbridge to connect matlab and python and the matlab_kernel itself. It is advisable to use conda to install packages. For jupyter metakernel pymatbridge this is possible (we are using packages from the conda-forge channel in this case), but matlab_kernel is not maintained on conda and needs to be installed using pip.

conda install -c conda-forge jupyter metakernel pymatbridge
pip install matlab_kernel

If you start jupyter now, you should have the matlab kernel available as an option. However, trying to actually use the kernel will result in an error message:


MATLAB’s Python engine is not yet installed. The official documentation suggests the following:

On Windows systems —

cd "matlabroot\extern\engines\python"
python setup.py install

On Mac or Linux systems —

cd "matlabroot/extern/engines/python"
python setup.py install

Again, please make sure to perform this with your matlab conda environment activated. You should now be able to launch jupyter notebooks and start a new matlab notebook!
If you have other questions or comments please contact the data management team:

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